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VARIATION AND CHANGE IN VIRGIN ISLANDS DUTCH CREOLE
TENSE, MODALITY AND ASPECT

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Variation and change in Virgin Islands Dutch Creole

Tense, Modality and Aspect

Proefschrift

ter verkrijging van de graad van doctor

aan de Radboud Universiteit Nijmegen

op gezag van de rector magnificus prof. dr. J.H.J.M. van Krieken,

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ABBREVIATIONS

1	=	first person
2	=	second person
3	=	third person
ACC	=	accusative
ART.CG	=	common gender article
ART.NEU	=	neuter article
COMP	=	complementizer
COMPL	=	completive
CONJ	=	conjunction
CONS	=	consecutive
COP	=	copula
DEF	=	definite
DEG.ADV	=	adverb of degree
DET	=	determiner
DIST	=	distal determiner
EMPH	=	emphatic
FO	=	Dutch Creole <i>fo</i> , either complementizer or modal
FOC	=	focus
FUT	=	future
GEN	=	genitive
IMPERS	=	impersonal
INAN	=	inanimate
INDF	=	indefinite
INF	=	infinitive
IPFV	=	imperfective
IRR	=	irrealis (<i>includes future for Dutch Creole glosses</i>)
KA	=	indeterminate whether perfect marker <i>ka</i> or modal <i>kan</i>
LOC	=	(general) locative preposition
M.ADV	=	modal adverb
MOD	=	modal
NEC	=	necessity (<i>used in tables</i>)
NEG	=	negation
OBJ	=	object
OPT	=	optative
PERM	=	permission
PFV	=	perfective
PL	=	plural

x

POL	=	polite
POSS	=	possessive
PSBL	=	possibility (<i>used in tables</i>)
PP	=	past participle
PRES	=	present
PRF	=	perfect
PROG	=	progressive
PROSP	=	prospective
PROX	=	proximal determiner
PRT	=	particle
PST	=	past
RED	=	reduplication
REL	=	relative
S.POSS	=	singular possessive
SBJ	=	subject
SBJV	=	subjunctive
SC	=	serial connective
SG	=	singular
TOP	=	topic
V	=	verb
VOL	=	volition

CHAPTER 1. VARIATION IN VIRGIN ISLANDS DUTCH CREOLE: TENSE-MODALITY-ASPECT

1.1. Introduction

Well into the nineteenth century, African people were massively displaced to perform forced labour elsewhere, particularly in the Caribbean.¹ In the US Virgin Islands, as in many other places, one result of this degrading and inhumane enterprise was the development of new languages that in the scientific linguistic discourse are commonly referred to as creole languages or creoles.² In the Caribbean context, creoles are the languages newly created by the forced labourers to develop a new community language with which they at the same time could communicate with the Europeans who exploited them.

For most of their existence, these languages have been considered inferior to other languages. That is, *if* they had been recognised as proper languages at all, even by researchers studying them. Addison Van Name for example writes that creoles are “inferior in general interest to even the rudest languages of native growth” and result from a combination of European and African languages mainly through a process of “decay” (1871: 123). Talking specifically about the lack of morphological complexity of Virgin Islands Dutch Creole, the Danish physician Pontoppidan (1881: 134) writes that “[n]aturally, such an empty language cannot express anything sharply or logically.”³

These expressions are proof of the status of creoles as “marginal languages” in many people’s minds, as pointed out by Reinecke (1937; 1938). Patrick (2008: 461–462) notes that scholars also tend to see evidence for the “marginal character” of pidgins and creoles in their variability. The low regard for creoles also correlates with i) the low social status of their

¹ European states and states resulting from European colonial activity officially abolished slavery at some point in the nineteenth century. Yet, there are more people forced to live as slaves today than there were people shipped from Africa in the time of the transatlantic slave trade (Bales 2012: 9). Sadly, slavery is by no means a thing from the past.

² Creole languages are of course not inextricably connected to a slavery context. The more recent Pacific creoles – such as Hawaiian and Tok Pisin – are related to contractual labour migration. However, such migration is, unfortunately, often very similar to slavery in practical terms. Moreover, creoles are not the only possible linguistic outcome of such (forced or unforced) mass migration.

³ “Natürlich kann eine so lose Sprache nichts scharf oder logisch ausdrücken.”

speakers, and ii) the fact that processes such as restructuring, innovation, and regularisation give speakers of the European input languages the impression that creoles are simplified versions of their own language.⁴ The European colonisers played an active role in establishing and maintaining the Africans' inferior status: "Not the least of the crimes of colonialism has been to persuade the colonized that they, or ways in which they differ, are inferior – to convince the stigmatized that the stigma is deserved" (Hymes 1971b: 3).

The language investigated in this thesis, Virgin Islands Dutch Creole (henceforth abbreviated to Dutch Creole, see §2.1.1), is the creole with the best historical documentation. However, the language as it was spoken by the enslaved of African descent in the eighteenth and nineteenth century is not directly documented. It is only in the late nineteenth and twentieth century that we have documentation of Dutch Creole as spoken by their ancestors, some of whom still spoke the language. In the eighteenth century, Dutch Creole was principally documented via the missionaries who had learnt and elaborated the language for their own purposes. But the fact that the eighteenth century documentation does not closely follow the spoken language is symptomatic of the more general phenomenon that written language does not reflect spoken language in general. As Labov (1994: 11) puts it, "[t]he linguistic forms in [historical] documents are often distinct from the vernacular of the writers, and instead reflect efforts to capture a normative dialect that never was any speaker's native language."

Another notorious force is language ideology (e.g., Joseph & Taylor 1990; Irvine & Gal 2000; Milroy 2001; 2003; 2012), which privileges standardized, written language as the true language. Language ideology affects not only speakers but also linguists in their descriptive and theoretical account of language: *erasure* is one of the processes in which language ideology manifests itself and it causes "some persons or activities (or sociolinguistic phenomena) [to be rendered] invisible. Facts that are inconsistent with the ideological scheme either go unnoticed or get explained away. So, for example, a social group or a language may be imagined as homogeneous, its internal variation disregarded" (Irvine & Gal 2000: 38). The effects of language ideology on the (historical) linguistic scientific enterprise are addressed within the field of historical sociolinguistics and efforts are undertaken to rewrite the history of languages (e.g., Schikorsky 1990; Milroy 1992; Watts & Trudgill 2002; Nevalainen & Raumolin-Brunberg 2003; Elspaß 2005; Elspaß et al. 2007; Rutten & van der Wal

⁴ There is much debate and controversy about terminology related to the study of creole languages and the history of their speakers and society. Many terms used in academia (such as the term *creole* itself) date from the colonial period and can be seen as reinforcing today the stigmas they were associated with then (see for example DeGraff (2003) 'Against creole exceptionalism').

2014). The main overarching goal of the scholars just cited is shared by this thesis, i.e., to find out how we can use historical written data to recover as much as possible of the *actual* spoken language use from the past, taking into account that “language is variable at all times”, as Milroy (2012: 582) stresses. The fact that language is inherently variable underlies all sociolinguistic study, with which the study of pidgins and creoles is in many ways interconnected. Studies from these research traditions have contributed to each other, challenged the same traditional views, and stressed the interdependence of language and society (Hymes 1971; Rickford 1988).

Dutch Creole is often mentioned or included in cross-creole comparative studies, which are necessary for deepening our understanding of the development of creoles, but Dutch Creole is still underrepresented in the whole supply of in-depth linguistic studies of Caribbean creoles. The systematic study of overseas varieties of Dutch, and Dutch-related contact languages such as Dutch Creole, is growing as a field (see den Besten & Hinskens 2005; Muysken 2013a; and van der Sijs 2014 for recent state-of-the-art publications). Moreover, the systematic study of these languages is increasingly facilitated by the development and publication of publicly accessible and searchable digital corpora (see van der Sijs 2014 for a recent overview of such digital corpora and her project of combining them into a major corpus of all documented contact varieties of Dutch).

The development of the Virgin Islands Dutch Creole Database NEHOL fits into this development towards larger electronic corpora. The NEHOL Database is a two-phase project that started in the early 1990s by Hans den Besten and Pieter Muysken (funded by NWO) and was continued in 2011–2012 by Pieter Muysken and Margot van den Berg (funded by Clarin-NL). Larger electronic corpora allow qualitative research to be complemented with quantitative research in a much easier and more precise way, since they allow the researcher to take much more data into account. This thesis is very much a product of the NEHOL database.

A database of a different kind, the Atlas of Pidgin and Creole Language Structures (APiCS), edited by Michaelis, Maurer, Haspelmath & Huber, combines descriptions of 74 contact language varieties world-wide (Michaelis et al. 2013a; 2013b; 2013c; 2013d; 2013e) and provides new opportunities for cross-creole comparisons which are also beneficial for the present thesis.⁵ Dutch Creole is often mentioned or included in cross-creole comparative studies, which are necessary for deepening our understanding of the development of creoles, but Dutch Creole is still underrepresented in the whole supply of in-depth linguistic studies of Caribbean creoles. This thesis

⁵ The language overview of Dutch Creole in §2.3 is a slightly adapted version of the chapter on Dutch Creole (titled ‘Negerhollands’, see §2.1.1 on the names used for the language) in Michaelis et al. (2013b).

is a new contribution to the linguistic study of Dutch Creole that focusses on its tense, modality, and aspect categories, taking into account potential effects of the social and linguistic backgrounds of the language users who provided the linguistic documentation of Dutch Creole and the role that language variation plays in this.

1.2. Tense-modality-aspect

The focus of this thesis is the Dutch Creole tense, modality and aspect system (commonly abbreviated as TMA).⁶ In linguistic typology, the abbreviation TAM⁷ is used to conveniently refer to these closely related categories. In creole linguistics, the same abbreviation is used but the elements are ordered differently: tense-modality-aspect or TMA. The rationale behind this ordering is the order in which the preverbal markers occur in many creole languages, when multiple markers combine. In creoles such as Papiamentu, Haitian, and Sranantongo, to name a few, tense markers precede modality and aspect markers and modality markers precede aspect markers. In Dutch Creole, TMA categories are also expressed through preverbal markers that seem to be consistent with the order T-M-A.

TMA systems are a compelling subject for linguistic investigation. There are a number of verbal categories that many languages have ways to express, but there is no single TMA distinction systematically marked in all languages. Yet, most languages tend to have grammaticalized the expression of a selection of TMA categories in the functional sense that these categories are systematically marked. This means that these categories are expressed not so much because they are part of the message the speaker wants to convey, but instead because it is customary in that language to express them whenever they apply.

Although cross-linguistic comparisons have been able to identify recurrent TMA categories, language specific TMA markers typically behave idiosyncratically to a considerable degree. This is not surprising when taking into account i) that most TMA distinctions are gradual rather than categorical, ii) that the functional span of TMA markers may be dependent on what other markers are used and which TMA notions these other markers can express, and iii) that the particular development that a specific TMA marker underwent may have a lasting effect on the contexts in which it is used. As a result of these interacting factors, related languages with similar

⁶ Often the term *mood* is used instead of *modality*, but the term *mood* is particularly relevant to morphological categories in many European languages, and has no clear basis in linguistic typology.

⁷ Sometimes the abbreviation TAME is used, including the ‘E’ of evidentiality which I will not consider in this dissertation.

categories may still use them differently from each other. The highly language specific profile of a TMA system makes it a logical domain for investigating and comparing closely related language varieties where the linguistic background of the language user plays an important role, as is the case for the linguistic documentation of Dutch Creole. (This will be elaborated in Chapter 2.) Unsurprisingly thus, TMA features have played a major role in variationist studies focusing on the development and relatedness of language varieties. This is particularly pertinent for studies of creoles since their very existence is the result of an extreme context of language contact, typically involving more than two languages. Moreover, it may be asked for creole features more so than for other languages to which extent the feature stems from another language or is an innovation that cannot clearly be linked to any specific (group of) language(s).

1.3. Approaches to variation

1.3.1. Early creole studies and language variation

As mentioned, the study of pidgins and creoles is tightly linked to the development of sociolinguistics as a sub-discipline of linguistics. At the turn of the twentieth century, early creolists such as Hugo Schuchardt and Dirk Christiaan Hesseling saw that “different levels of creole coexist in the same speech community” (Meijer & Muysken 1977: 35). In 1884, Schuchardt, “the undisputed father of pidgin-creole studies” (DeCamp 1971a: 31), was the first to counter the Neogrammarian assumption of the time that virtually all language change has a system-internal cause (Thomason & Kaufman 1988: 1). The mere existence of pidgins and creoles undermines this assumption, but with his statement “Es gibt keine völlig ungemischte Sprache” (‘There is no completely unmixed language’) (Schuchardt 1884: 5), he argued that language contact affects all languages.

Still, the influence of society on language was only widely recognized when William Labov published ‘The social motivation of a sound change’ in 1963. The foundation for the development of sociolinguistics as a recognized discipline of scientific linguistic study was laid with additional, highly influential studies by Labov (1963, 1966; Weinreich, Labov & Herzog 1968) in the 1960s. Yet by 1971 the insights of pidgin and creole studies had still not become common place in linguistics, as Hymes writes in the preface to his influential edited volume:

[The] surge of activity and interest [in pidgins and creoles], and its implications, has not been widely recognized in general linguistics, let alone beyond. Yet the origins, description, and social roles of pidgins and creoles

pose in particularly clear form the kind of problem with which the emerging field of sociolinguistics is concerned.
(Hymes 1971b: 4–5)

Linguists often find it possible to take social factors for granted in analyzing present and the results of past change. They proceed as if the sample of speech provided by one or a few informants could be assumed to represent a norm identical throughout a community, and as if something that can be called ‘normal transmission’, a sort of seamless continuity, from one generation to another, could be taken for granted. [...] It is clear that [these assumptions] must be questioned when the languages to be described or classified historically is a pidgin or creole. These languages demonstrate dramatically the interdependence of language and society.
(Hymes 1971b: 5)

As Hymes notes, pidgins and creoles play a major role in the study of language as a social phenomenon, since “their very existence poses the question of the relation of means of speech to social needs” (Hymes 1971b: 6).

1.3.2. Creole continuum and variation studies

The creole continuum as a descriptive model of the language situation in the Caribbean was first presented by DeCamp (1971b) for Jamaica. Many variation studies have focused on the tense and aspect system of mesolectal Caribbean creole varieties (e.g., Rickford 1979; 1987; Winford 1992; Patrick 1992; 1999; Blake 1997; Hackert 2004) in order to assess the relation between the mesolect and the polar varieties. This is done by looking at how the variation is constrained (see Chapter 3 for more references). Recently, the usefulness of variation studies was demonstrated once more by Walker & Sidnell (2011), who show that not just the presence of a specific item but the conditioning of variation reveals the underlying system.

The creole continuum as it was originally conceived has been much criticised for the notion of decreolization (e.g. Mufwene 1994; Patrick 1999; Aceto 1999), which assumes that mesolectal varieties are the result of basilect speakers adapting towards the acrolect. Rickford (1987) discusses the non-essential theoretical aspects of the continuum model and counters arguments in favour of a discrete model (1987: 16–22) stating that the “boundary between creole and standard (or basilect and acrolect) [is] variable rather than sharply defined” (1987: 22).

Mufwene (1994: 71–72) and Aceto (1999; 2014) dispute the idea that linguistic variation is essentially differently organized for creole languages than for other languages. Moreover, they contest the ostensible exceptionalism that emanates from the view that the creole continuum is

only applicable to the Anglophone Caribbean world. It is considered a crucial feature of the creole continuum that is only used for societies in which the creole's lexifier is the official language. But this suggests exactly that the kind of linguistic variation and the social and linguistic processes involved in those societies are essentially different in societies where the creole's lexifier is not the official language, societies such as the Danish West Indies, Suriname and the Dutch Antilles.

Migge & Léglise (2011) challenge this issue using the example of the "Surinamese Creole linguistic space" and demonstrate the inaptness of the creole continuum model to accommodate linguistically more complex societies and developments, and language use in societies where the lexifier no longer plays a role. They show that in the case of the linguistic repertoires of the Surinamese Eastern Maroon communities, changes in the repertoire and the structure of the creole are not so much due to the lexifier nor the official languages of the region, but rather "due to contact between different varieties of the same language induced by a range of social forces and by contact with [the related language] Sranan Tongo" (2011: 226).

Rickford (1987: 22–30) challenged the aptness of a multi-dimensional continuum stating that these could be decomposed into multiple one-dimensional continua. Yet, the complex interactions portrayed by Migge & Léglise (2011) show that even a complex of one-dimensional continua may not suffice. They conclude their paper on the Surinamese Creole linguistic space by asking the reader: "[W]ould maybe a complex (or a galaxy) of practices and varieties, organized by social forces and always in action, be a more suitable model to represent the dynamics of variation?" (2011: 227).

1.4. The study of creole TMA

1.4.1. Variation studies of creole TMA

There is no other feature of creole languages that has garnered so much interest as the fact that so many creoles from all over the world use preverbal markers to express tense (or time reference), aspect, and/or modality. The functional and structural similarities with respect to the preverbal TMA system in creoles all over the world have particularly garnered so much attention, because they occur in creole languages spoken all over the world that are historically only partly or indirectly related (Muysken 1981: 181). They have played an important role in debates about theories of creole genesis.

Variationist studies of creoles have not so much focused on accounting for the genesis of creole structure but rather revealing the system underlying the variation that is inherent in many of the typical (i.e., in many cases particularly Caribbean or Atlantic) creole features. In doing so they have

shown that the alleged, remarkable similarities between the preverbal TMA systems of various creoles are only superficial.

As an example, Gillian Sankoff's quantitative study of the Sranan and Tok Pisin TMA system has demonstrated the system's variability, thus disproving Bickerton's claim that the TMA markers are in a privative opposition to each other (see §1.4.2).

Other variationist studies of creole (or contact language) TMA systems are Singler (1984; 1999), and Patrick (1999: 170) for Liberian English; Rickford (1986; 1987) for Guyanese Creole; Winford (1992; 1993b; 1993c) for Trinidadian Creole; and Tagliamonte & Poplack (1988; 1993) and Poplack & Tagliamonte (1989; 2001) for Samaná English, Nova Scotian, and other varieties of African American English. Patrick (1999) studies urban Jamaican and Hackert (2004) Bahamian Creole English. The current dissertation builds upon these works.

1.4.2. The proto-typical creole TMA system

As early as 1914, Hugo Schuchardt stated that the similarities between creoles are not the result of common ancestry, but of parallel development (Meijer & Muysken 1977: 32). Nevertheless, half a century later, scholars as Thompson (1961), Taylor (1971), and Voorhoeve (1973) tried to account for the similarities in the creoles' TMA systems by positing one single ancestor for all creoles, a Portuguese-based trading and slaving pidgin that possessed these TMA markers (Muysken 1981).

According to this hypothesis, the Portuguese proto-pidgin had spread from West Africa through colonial activity to large parts of the world in the sixteenth and seventeenth century. The fact that not all creoles had the same origin of lexicon (hence why one speaks of Portuguese, English, French, etc., or Dutch-based or –lexifier creoles) was assumed to be the result of relexification, i.e., “the massive substitution of vocabulary while maintaining basic grammatical structure” (Muysken 1981: 134). Because the monogenesis hypothesis does not extend its claims to creoles that are not the result of European colonial activity, it is not a full theory of creole genesis. However, it is also inadequate as an explanation for the similarities in TMA systems across creoles, as discussed in Bickerton (1975) and Muysken (1981: 186).

An alternative was proposed by Derek Bickerton in his 1974 publication, republished in 1980, in which he addressed the issue of creole formation to solve the questions posed by the perceived similarities across creole TMA systems. He attributed the similar development of preverbal TMA markers across creoles to universal properties of human perception and cognition that become active because the child – who creates the creole – receives inadequate input from its parents speaking an unstable pidgin. The TMA

system found in Hawaiian Creole English and the Caribbean creoles Guyanese, Haitian Creole French, and Sranan was asserted to be the “ideal system” (Bickerton 1980).

This allegedly ideal system consisted of three categories: 1) anterior, a tense category; 2) irrealis, a modal category; and 3) nonpunctual, an aspect category. The unmarked verb, “the zero form[,] marks simple past for action verbs and nonpast for state verbs” (1980: 5). The anterior marker “indicates [...] simple past for state verbs” (1980: 5) and a moment in time prior to a “point of reference [which is] another action or actions rather than the present moment” (1975: 46). Irrealis modality refers to “unreal time”, which includes “futures, conditionals, subjectives, etc.” (1980: 6). The nonpunctual marker is asserted to function as a progressive or an “iterative”, which Spears (1990: 123) points out is used by Bickerton as a synonym for habitual. This tripartite TMA system draws on Thompson (1961) and Taylor (1971), with the exception of the anterior category and a relabeling of the other two categories (Muysken 1981: 183).

Bickerton developed his Language Bioprogram Hypothesis (LBH) because Hawaiian Creole English (HCE) has certain features that its ancestor Hawaiian Pidgin English did not have. Among these features is the preverbal TMA system (discussed in Bickerton 1981: 26–30). The LBH posits that creoles result from children creating a full-fledged language from the inadequate linguistic input they receive from their parents’ restricted pidgin. The communicative gaps in the pidgin require the genetic bioprogram to fill them in. In his 1984 publication, the LBH is linked to Chomsky’s principles and parameters approach (e.g. Chomsky 1986). In this approach, Universal Grammar (UG) consists of invariable principles and a number of parameters that have only a limited number of possible settings. Thus, the typical features of plantation creoles are a direct reflection of the unmarked options of parameter settings of UG. Veenstra (2008: 227) sums up the four constant assumptions of the LBH as follows:

- i) a highly unstable and variable jargon is assumed to be the predecessor of creole languages (of which the HPE/HCE pair is the prototypical example)
- ii) creolization is seen as a catastrophic process, as opposed to a gradual one.
- iii) nativization is the key factor in creolization
- iv) Bickerton downplays the role of substrate languages, despite extensive bilingualism in Hawai’i (and therefore, possible cross-linguistic interference)

The LBH assumed that all creole languages have the same syntax, but now that many of these features have been intensively studied, it has become increasingly clear that although creoles have many features in common they

also differ from each other in many respects. Muysken (1988) strongly opposes the LBH's assumption of a prototypical creole syntax on the basis of the differences between creoles. He notes that although creoles are remarkably similar with respect to the order of the TMA markers, the exact TMA functions vary considerably.

Variation studies played a decisive role in revealing how specific TMA markers were actually used and systematised. As Singler (1990b: ix–x) notes, “upon further examination” it turned out that not “[e]ven the original four creoles whose shared properties form the basis for [Bickerton's] prototypical creole TMA system [...] entirely conform to that system”. This is illustrated for Haitian Creole by Spears (1990). Furthermore, Sankoff (1991[1990]) shows that the anterior marker *ben* in Sranantongo is not in a privative opposition with the unmarked verb, as predicted by Bickerton. She concludes that “the category [anterior] has not fully grammaticalized formally [in Sranan], such that unmarked forms can be considered to have a particular interpretation as “zero-marked”” (Sankoff 1991[1990]: 309–310). Rather, overt tense marking seems to be more optional.

1.4.2. (Contact-induced) grammaticalization and creole formation

Despite some controversy on how creole languages come into existence, there is a consensus that a creole language has a reduced predecessor, be it called a pidgin, or as e.g. in Winford (2006; 2008), an interlanguage (IL). Compared to this restricted predecessor, a creole is grammatically more complex. The terms *elaboration* and *expansion* have been used to refer to the resultant state of or the process by which the newly developed grammatical complexity in a creole came about (Siegel 2008a: 56–58). With respect to morphological expansion, Siegel (2008a: 58) adopts the viewpoint “that expressing semantic distinctions with grammatical or purely functional morphemes, rather than lexical items, is an indicator of greater morphological complexity”. The implication is that this holds as well for “the emergence of a TMA system in a contact variety that previously used only adverbs to express temporal relationships” (Siegel 2008a: 57). Winford uses the term “restructuring” (e.g., 2003; 2006; 2008), which “involves the ways in which individual interlanguage (IL) grammars are created and elaborated in the course of acquisition. This is the sense in which researchers in the fields of first and second language acquisition have always used the term” (Winford 2006: 87).

Many authors have used the term grammaticalization to explain the creation of grammatical functions in creole formation, of which the TMA markers are prominent examples. Although the notion of grammaticalization is controversial in some respects (see e.g. Campbell 2001; Newmeyer 2001; Joseph 2001; and Dahl 2004: 119ff), it is still widely used as “the change

whereby lexical items and constructions come in particular linguistic contexts to serve grammatical functions, and, once grammaticalized, continue to develop new grammatical functions” (Hopper & Traugott 2003: xv).

Bruyn (1996) distinguishes three types of grammaticalization in creoles (based on the study of Sranan): 1) ordinary grammaticalization, i.e., grammaticalization as defined above, which is a gradual and language-internal process; 2) instantaneous grammaticalization, which is different from ordinary grammaticalization in that “developments that normally proceed gradually can take place within a short time span in creolization” (Bruyn 1996: 39); and 3) apparent grammaticalization: “the transfer of the result of a process of grammaticalization that has taken place in another language” (Bruyn 1996: 42).

With respect to the Sranan TMA marker *ben/bin*, Bruyn (2008: 397) asserts that the fact that “there are no traces of *ben* other than as a preverbal tense marker [...] implies that, rather than a development based on the usage of the form within Sranan itself, there has been a shortcut from the English past participle [...] to the function of tense marker in the creole language”. She interprets this as an “instance of restructuring, a term used to refer rather broadly to the structural reorganization of linguistic material affecting and more or less radically altering the lexifier input (Neumann-Holzschuh & Schneider 2000; Mufwene 2001: [12ff.], 27ff.)”.

Unlike Mufwene (1996; 2001: 28, 54), Bruyn assumes the process of restructuring involved in the creation of Sranan *ben* to be unrelated to processes of grammaticalization. Detges (2000) similarly advocates distinguishing between grammaticalization *per se* and reanalysis without grammaticalization in the development of TMA markers, which he illustrates with examples from various tense-aspect markers in French creoles. Along the same line, Plag (2002) proposes that the notion of grammaticalization should be restricted to language-internal developments.

This overview is intended to provide a background against which to interpret possible developments of the use of the Dutch Creole TMA markers, studied in the Chapters 3–6, also in relation to their etyma.

1.5. Research questions

Central issues of language are best addressed from a comparative typological perspective, but the typological picture needs to be based on accurate, detailed descriptions if it is to have any validity. Therefore, one of the aims of this thesis is to give a thorough and detailed account of the various Tense-Modality-Aspect (TMA) categories in Dutch Creole from a combined synchronic and diachronic perspective. To maximize the usefulness for typological studies and cross-language comparisons, there will be much

attention to precise, typologically informed definitions of the categories investigated. The descriptive perspective of this dissertation is represented by the following research question:

1: How did the TMA categories of Dutch Creole develop?

However, as mentioned in §1.1, this question cannot be answered without properly taking into account the background of the groups of language users that produced the various types of Dutch Creole data. This is the sociolinguistic perspective that is represented in the second research question:

2: Which patterns of variation do we encounter in the development of TMA in Dutch Creole?

As mentioned in §1.1, there is little to no direct documentation of Dutch Creole as spoken by those of African descent in the eighteenth century. Instead, the eighteenth century data document Dutch Creole as spoken by those of European descent. However, most of the eighteenth century documents regarding Dutch Creole were written by i) German speaking Moravian missionaries, and ii) Danish Lutheran missionaries (see §2.2). The twentieth century data document Dutch Creole as spoken by those of African descent. By addressing the above two research questions I hope to make a step in attempting to tear apart the two dimensions of time and language variety that come together in the historical Dutch Creole documentation.

These questions are best answered taking into account the situation in the input languages that created Dutch Creole and the languages that influenced it in any other way. Straightforward and unique parallels between any such (group of) language(s) may facilitate the interpretation of the findings in Chapters 3–6. These findings are particularly revealing in the case of West African patterns in the eighteenth century data provided by European missionaries and a planter of European descent, since the West African patterns undeniably derive from the speech of Dutch Creole speakers of African descent. Similarly, when constructions used to express these West African patterns are encountered in the missionary data also in other ways with direct parallels in either German or Danish, these correspondences are strongly suggestive of L1 interference in the missionaries' use of Dutch Creole when they do not occur in the speech of those African descent. All of the studies in this dissertation implement quantitative analyses in a way best fit for the category in question.

1.6. Structure of the present dissertation

In this chapter I have discussed how TMA and variation in creole or contact languages have been studied to serve as a framework in which to place the studies in this thesis. The socio-historical background of Dutch Creole and the islands where it was spoken as well as the various groups of language users and documentation of the language are discussed in the following chapter. The Chapters 3–5 are case studies, each devoted to one specific tense-aspect category: Chapter 3 investigates the expression of past time reference (or past tense); Chapter 4 discusses various markers that express imperfective and prospective aspect; and Chapter 5 is devoted to markers of perfect and completive aspect. Chapter 6 investigates the items related to the domain of modality. The main findings of these four case studies are recapitulated in the concluding Chapter 7.

Chapter 3 focuses specifically on the factors governing the alternation between preverbal *(h)a* and the unmarked verb in contexts with absolute **past time reference** using a quantitative variation analysis. A comparison of samples of the three Dutch Creole varieties shows that there is a different system underlying the twentieth century ADC data compared to the eighteenth century EDC and MDC data: unlike in the former, past time reference is nearly categorically marked by *(h)a* in the eighteenth century data and the few occurrences of unmarked pasts highly correlate with habitual or characteristic situations. The chapter concludes with a discussion of how the Dutch Creole situation relates to the use of unmarked verbs with past time reference in other Caribbean creoles. Differences between the twentieth century ADC data and the eighteenth century data are not likely the result of language death.

Chapter 4 is devoted to the study of the items expressing **imperfective** and **prospective aspect**. This chapter deals with multiple markers and constructions in which these markers are used: imperfective *lo* and its eighteenth century counterpart *le*, prospective *lo* and *lo lo*, and the progressive construction of preverbal *lo* used in conjunction with a locative copula. Preverbal *le* in eighteenth century data and language descriptions is deviant in use from how aspectual preverbal *lo* is used in nineteenth & twentieth ADC sources. So, irrespective of whether there is a lectal difference (MDC and EDC use *le*, ADC uses *lo*) or *le* was replaced by *lo* in ADC at some point in time, there is again a different system underlying the eighteenth century data compared to the ADC data for this specific feature. Moreover, EDC *le* appears to have undergone an independent innovation not found in the MDC data. The use of *le* in the MDC data may represent an in-between step in this development.

Chapter 4 also looks at two alternations in the nineteenth and twentieth century data involving imperfective and prospective preverbal *lo*. First, the

imperfective *lo* is paired with the complex progressive construction (locative copula with a *lo* + verb adjunct). The complex progressive construction is clearly in the process of grammaticalizing, but there are no individual differences between the documented speakers. Second, prospective *lo* is paired with prospective *lo lo*, but here there are clear individual differences: all documented speakers use prospective *lo*, only a few *lo lo*, and there is one progressive speaker who uses predominantly *lo lo* but hardly any *lo*.

Chapter 5 deals with the **perfect aspect marker** *ka* and **completive marker** *kaba*. It is agreed upon in the literature that *ka* expresses non-imperfective aspect, but there is no agreement in the literature on what kind of aspect exactly. Thus, this chapter's first task is to find out what its function is in the eighteenth, nineteenth, and twentieth century Dutch Creole sources, for which I take both a quantitative and a qualitative approach. The same is done for *kaba*, which is assumed to be historically related to *ka*. A functional comparison of *ka* and *kaba* with their respective functionally closest counterparts in the main lexifier Dutch and the most likely substrate languages Akan, Ewe, and Ga shows that completive *kaba* has a Gbe origin. Completive *kaba* is virtually absent in the twentieth century ADC data, but much more frequent in eighteenth century data. The Gbe origin of completive *kaba* suggests that its eighteenth century functions stem from ADC. Yet, some occurrences of completive *kaba* in MDC reflect a Germanic resultative non-verbal predicate strategy expressing a similar meaning.

Chapter 6 compares the Dutch Creole **modal system** of the twentieth century folk narratives collected by de Josselin de Jong (1926) with the modals used in the eighteenth and nineteenth century data. In the eighteenth century data, sometimes different items are used than in the twentieth century data, and sometimes those items used in the twentieth century are used with a (slightly) different meaning. This is particularly true for the necessity-related items and the volitional items. In some cases, MDC differs from both ADC and EDC (the polysemy of volitional *wel/wil* with a Kwa substrate origin; the volitional use of *mangkée/mankeer*), while in other cases, the eighteenth century data (MDC and EDC) differ from the nineteenth and twentieth century ADC data (e.g., the necessity modals). Comparisons with other language varieties in contact with Dutch Creole and other Caribbean creoles suggest: i) the use of the necessitive modal *ha fo* in the nineteenth/twentieth century data (as opposed to eighteenth century *mut/moet*) may result from contact influence of English *have to*; and ii) nineteenth/twentieth century data ADC *fo* may be an old feature of ADC.

These findings are summarized in Chapter 7, where I also make some suggestions for future research as well as general ramifications for contact linguistics.

CHAPTER 2. VIRGIN ISLANDS DUTCH CREOLE: BACKGROUND

2.1. A history of language contact

2.1.1 The language and its name

Virgin Islands Dutch Creole (abbreviated to Dutch Creole) is the contact language that probably developed at the end of the seventeenth century on the island of St. Thomas, a Danish colony in the Caribbean. In the course of the eighteenth century this colony, known as the Danish West Indies, expanded to two neighbouring islands: St. John and St. Croix. In 1917, the Danish West Indies were sold to the US and since then known as the US Virgin Islands. From the late seventeenth to the nineteenth century, the majority of the enslaved and free Afro-Caribbean population of the Danish West Indies appears to have spoken Virgin Islands Dutch Creole. It continued to be spoken up into the twentieth century. In the eighteenth century, the language was also spoken by the locally-born population of European descent (the Euro-Caribbean population). Its lexicon derives mainly from south-western coastal varieties of Dutch.

The oldest name documented for the language referred to in this work as Virgin Islands Dutch Creole are variants of the German word *criolisch* ‘creole’. The earliest attestation of this name dates from 1736, from a much cited sentence from the diary of Friedrich Martin, the leading Moravian missionary of the mission that had just been started on St. Thomas, where the language is referred to in German as *carriolse*. In a 1739 letter, the missionaries use *Cariolisch* when writing in German. Oldendorp, writing around 1768, uses the term *criolisch*. When writing in the language itself, Moravian missionaries such as Johann Böhner and Johann Christoph Auerbach refer to the language as *Creol* or *die Creol Taal* ‘the creole language’ (Böhner nd.b; Auerbach 1774). The same description is used by A. Magens in his letter from 1883: *Creol* and *di Creol tael*.

The Moravian brother Oldendorp (2000: 330) reports around 1768 that “all those born there [i.e. in the West Indies in general], whichever colour they have, are called creoles⁸ [bold in original], and this name is used by extension in reference to the domesticated animals that come from elsewhere.” [translation mine] Thus, within the context of the Danish West

⁸ “Alle dort [in Westindien] geborne, von welcher Farbe sie sind, heißen **Criolen**, und dieser Name wird bis auf die zahmen Tiere ausgedehnt, die von ausländischen herkommen.” (Oldendorp 2000: 330).

Indies, where the term *creole* was used to refer to its locally-born inhabitants, Creole is a logical name for the language in question for two reasons: it aptly characterizes it as the language of the people called creoles, and as the language that was born on the Danish West Indies. The English word *creole* seems to have come from French *créole*, which is in turn derived from Portuguese *crioulo*, a form related to the verb *criar* ‘nurse, breed, nourish, bring up’ (Todd 1990: 14). For the German forms *criolisch* and *Cariolisch* it is not immediately clear whether it is derived from French or Portuguese, but the Danish West Indies Dutch Creole form *Creol* seems to have derived from French *créole* given the strong form similarity. Todd (1990: 14) notes that “[f]rom the quotations cited one can see a referential development from someone/something native to an area, to a European born in the colonies, to all born there, to Africans born in the colonies”. In the eighteenth century Danish West Indies, the term *creole* was clearly used in the third sense “all born there” and in extension to customs and behavior (such as their language) particular to them.

In the twentieth century, the term *creole* has been adopted in scientific discourse to refer to newly created languages in general – not just those that were created in the Caribbean or along the West African coast – that are the result of contact between languages. Thus, creole languages or creoles are contact languages by definition. It has turned out difficult to formulate a definition of a creole language that applies to all languages commonly referred to as such, but the following definition by Sarah Thomason reflects the essence: “The grammar of a creole [...] is a crosslanguage compromise of the languages of its creators, who may or may not include native speakers of the lexifier language” (2001: 160). Thus, the custom to distinguish a creole language from other languages serves nowadays primarily to group together those languages that cannot be said to derive genetically from a predecessor in a sense that other languages can.

Alleyne (2014) rejects the term *creole* exactly because “creole” languages have not all emerged under the same circumstances and developed in the same way. In addition, he denounces the derogatory origin of the use of the term in reference to the language of the population of African descent. Instead, he advocates referring to the languages in question by using the adjective of nationality.

Sabino (2012: 3) addresses the same issues with the term *creole*, but still opts for Virgin Islands Dutch Creole given the complex situation to name this particular language.

The complicating factor in naming the language is that it is no longer spoken, and the current inhabitants of the US Virgin Islands use a variety of English and/or English Creole as their first language. The omission of the word *creole* would not solve things, as the name Virgin Islands Dutch fails

to do justice to the unique character of the language: it is by no means a (second-language) variety of Dutch.⁹ Therefore, I use the name Virgin Islands Dutch Creole, which has been used before by other scholars, such as Gilbert Sprauve, Ann Adams Graves, William Bradford, and Robin Sabino. From here, I will abbreviate this name to Dutch Creole for practical reasons. It is also by this name (Dutch Creole) that “[t]hose persons living in the Virgin Islands who know of the existence of this language (and many do not) refer to this language” (Sabino 1990: 5, fn6).

There is also an alternative name in use: Negerhollands, which literally translates into English as Negro-Hollandic. *Hollands* is the language variety of the central western Netherlands (Holland), which includes the capital Amsterdam and cities as The Hague and Rotterdam. It is the politically and economically dominant region of the Netherlands, so that in colloquial use (also outside of the Netherlands) the terms Holland and Hollands are often equated to the Netherlands and Dutch respectively, which is probably the case for the name Negerhollands. Its first attestation dates back to 1840, when Laurens Ph. C. van den Bergh wrote ‘something about Neger-Hollandsch’ (‘iets over het Neger-Hollandsch’).

This name has become established, particularly in publications written in Dutch and German, after Hesseling’s (1905) *Het Negerhollandsch der Deense Antillen* (‘Negerhollands of the Danish Antilles’), Schuchardt’s (1914) ‘Zum Negerholländischen von St. Thomas’ (‘On Negerhollands of St. Thomas’), and de Josselin de Jong’s (1926) *Het huidige Negerhollandsch* (‘Current Negerhollands’). However, it is also still commonly used in international publications in English, which shows how much this name has become generally accepted, despite the racist connotations of the first part of the name. Habit and tradition are the reasons why the name was used for the Virgin Islands Dutch Creole database NEHOL (see §1.3.7). Sabino (1990; 2012) proposes to reserve this name for the language of the enslaved and their descendants, as a tribute to its speakers “correctly identif[ying] African adults, [...] as those who made possible the colony’s survival” (Sabino 2012: 207). But the undeniably racist origin of the name remains problematic for many, and rightly so.

Therefore, I have chosen not to use this name in this dissertation.

⁹ Nevertheless, the names for the other Dutch-lexifier creoles, Berbice Dutch and Skepi Dutch have been constructed in this way, although they are just as little second-language varieties of Dutch as Virgin Islands Dutch Creole is.

2.1.2. Demography and language use in the Danish West Indies

2.1.2.1. *Early European presence in the Caribbean*

The Danish colony known as the Danish West Indies was a highly multilingual society from the beginning. The presence of colonists from a diverse range of European kingdoms and states from its foundation in 1672 is a direct result of the European international relations and the seventeenth century situation in the Caribbean, which Europeans then referred to as the West Indies. Below I will start with a very brief overview of European presence in the Caribbean and sketch of the historical context of the establishment of the Danish colony in St. Thomas.

The European colonization of the Caribbean archipelago started with the Spanish explorations under Columbus, who in 1493 gave the Virgin Islands their current name. In 1496, his brother founded Santo Domingo on Hispaniola, not too far west of the Virgin Islands. In the course of the sixteenth century, the Spanish had laid claim to most parts of North and South America and the islands in the Caribbean Sea.

The English actively started colonizing parts of the Caribbean archipelago as a strategic place to thwart the Spanish profitable exploitation of e.g. mainland Mesoamerica. Most important for English influence in the Caribbean was their colonization of St. Christopher (St. Kitts) around 1625, occupied jointly with the French, and Barbados (Westergaard 1917: 12). The latter was colonized in 1627 (Smith 2015: 95). In 1628, the English took possession of Nevis and Barbuda (both close to St. Kitts), and in 1632 of Antigua and Montserrat (Westergaard 1917: 12).

The Dutch had set up a West India company to join in on the profitable trade from the West Indies in 1621 and first took joint possession of St. Croix (one of the Virgin Islands) with the English in 1625. Then in 1632, they occupied St. Eustatius, just northwest of St. Kitts, and Tobago, Curaçao in 1634, and Saba in 1640 (Westergaard 1917: 12). In 1645, the English expelled the Dutch off St. Croix to St. Eustatius and St. Martin (Knox 1852: 26). In 1695, St. Croix, then in French hands, was abandoned until the Danes purchased it in 1733 (see §2.1.2.5) (Knox 1852: 31–41).

2.1.2.2. *Why there were so few Danes in the Danish West Indies*

A first successful Danish trade journey to the West Indies in 1652 by Erik Nielsen Smit triggered the idea of establishing a colony in the West Indies (Dookhan 1994: 33). The first attempt at colonizing St. Thomas took place in 1665, when on July 1, Smit set sail on the Eendragt ('Concord') for St. Thomas and arrived in late 1665 or early 1666, in the middle of the Second Dutch War (1665–1667) (Dookhan 1994: 35). However, the death of governor Smit, subsequent raiding by English privateers, a hurricane, and

illness among the settlers made the Danes decide to abandon St. Thomas and return to Denmark after nineteen months (Dookhan 1994: 36–37).

Effective settlement of St. Thomas commenced in May 25, 1672, when the vessel of the Danish West India Company the *Færøe* ('Faeroe') arrived on the by then deserted island: English settlers who had been living there after the previous Danish settlement had left six or seven weeks earlier (Dookhan 1994: 40). To prevent British attacks on the newly founded colony, the new Danish king Christian V who ascended the throne in 1670 had immediately arranged a treaty of alliance and commerce between Denmark and Britain, allowing the establishment of a colony in St. Thomas without British opposition (Dookhan 1994: 37).

But the alliance with Denmark was part of a bigger plan by the French king Louis XIV to destroy the Dutch Republic in which he was aided by the British king Charles II, to which end, the two kings had secretly signed the treaty of Dover in 1670 (Westergaard 1917: 24). This event paved the way for the Third Dutch War (1672–1674) forcing Dutchmen to flee from their settlements in the Lesser Antilles to the new Danish colony of St. Thomas (Dookhan 1994: 70). There were also French, German, English, and Jewish settlers joining the Danes, but none of them were as numerous as the Dutch (Westergaard 1917: 38).

The Danish West Indies had trouble finding Danish colonists from the outset. Stories of the suffering and death of those who had settled St. Thomas in 1665 were the cause that no Danish citizen dared to leave for St. Thomas in 1671 (Dookhan 1994: 38). The *Færøe* set sail in 1671 to colonize St. Thomas with 190 persons on board, but although the journey resulted this time in a permanent settlement, 89 of the *Færøe*'s passengers died on board and 75 died not long after landing (Dookhan 1994: 38). Later journeys in 1673 and 1675 had similar outcomes, only strengthening St. Thomas's notoriety and ensuring that no Dane was voluntarily joining the colony (Westergaard 1917: 39). Moreover, "fevers, climate, and careless living killed [the indentured servants] off faster than they could be replaced" (Westergaard 1917: 40).

The non-Danish settlers were thus much needed to supplement the by death rapidly declining St. Thomas population, but particularly essential was the knowledge of plantation agriculture that they brought with them (Dookhan 1994: 70). Nevertheless, as the expected high profits failed to appear, the situation became so critical that the Danish king was forced to offer the Brandenburger Company an exclusive lease in 1685, granting them inter alia land to establish plantations, the right to stay for 30 years, to share the trade in slaves with the Danish Company, and to enjoy all their privileges in the event of war (Hall 1992: 7). The Brandenburger activities managed to assure the viability of the Danish colony, but other than that

they did not seem to benefit the Danes much. St. Thomas's harbour was much frequented during the War of the League of Augsburg (1688–1697), but the traffic benefitted primarily the Brandenburgers and non-Danish merchants (Hall 1992: 7).

2.1.2.3. Dutch dominance among the seventeenth century free St. Thomas population

These circumstances clarify how St. Thomas could emerge as a Danish colony harbouring settlers of rather diverse nationalities, in which the Danes were a minority almost from the start. Expelled from St. Eustatius by the English, many Dutchmen fled to neutral St. Thomas, which they soon dominated culturally and commercially. Dutch became the *lingua franca* of commercial and social intercourse, while it was also used for official matters such as the issuing of passes and proclamations: at least the six governors between 1688 and 1727 occasionally issued proclamations in Dutch (Hall 1992: 9).

These observations are supported by seventeenth century St. Thomas population data. According to the 1691 census, almost a quarter (41 out of 174) of the adult St. Thomas population was born in the Dutch Republic (roughly the current Netherlands) or the Southern Netherlands (which included the area that is current day Belgium) (van Rossem 2013b: 719–720). However, 44% of the adult (and 46% of the total) population came from other West Indian colonies (van Rossem 2013b: 719–720). Based on a comparison of their last names in the censuses of 1686, 1688, and 1691, Van Rossem (2013b: 727) supposes a Dutch-speaking background of three-quarters (59 out of 77) of the adult St. Thomas population in 1691 born in the West Indies. Thus, as many as an estimated 57% of the population had a Dutch-speaking background. Moreover, van Rossem (2013b: 727) shows that not less than 63% (76 out of 120) of the 1691 St. Thomas households contained at least one adult speaker of Dutch.

Van Rossem (2013b: 729) also looks at the nationalities of the plantation owners from 1673 through 1690. In 1673, there were only five (documented) plantations, of which two were owned by Dutchmen, two by Englishmen, and one by a Frenchman. This number is fairly stable throughout the 1670s, but during this time the Danes establish their plantations thereby surpassing the others in number. But in the early 1680s, the Dutch catch up with the Danes. By 1686, there were 43 plantations, of which the Dutch owned 17 (40%), the French 9 (21%), the Danes 8 (19%), and the English 7 (16%). The number of plantations increased particularly heavily after 1688, the year in which governor Adolph Esmit issued a mandate granting settlers from foreign islands an eight-year exemption from taxes (Dookhan 1994: 70–71). By 1690, half of all St. Thomas

plantations were owned by Dutchmen, to wit 45 out of a total of 92 plantations (Van Rossem 2013b: 729).

The other free adult population in 1691 were in decreasing order Danish (10%), French (6%), English (5%), Irish (4%), German¹⁰ (3%), Norwegian (1%), North American British (1%), Portuguese (1%), and there was one manumitted married couple from West Africa (van Rossem 2013b: 719–720).

2.1.2.4. Zealandic and West-Flemish origin of the early Dutch settlers

In his *Het Negerhollands der Deense Antillen* ('Negerhollands of the Danish Antilles'), a study based on the eighteenth and nineteenth century documentation of the language, Hesseling (1905: 61–64) concludes that most early Dutch colonists came from the Dutch province of Zeeland¹¹ by pointing to the Zealandic origin of many Dutch Creole words, phrases and morpho-phonological features.

In a review of this monograph published the same year, the Fleming Logeman (1905: 356–357) argues in favour of considerable Flemish influence in addition to Zealandic. He mentions that the words that Hesseling (1905: 64) presents to illustrate Zealandic influence are also used in Flanders, while for other features Hesseling himself indicated that they were also used in Flanders in general, or specifically in West Flanders (the coastal province).

The West Fleming Vercoullie (1919: 303–304) compiles a list of Dutch Creole words he recognizes as West Flemish on the basis of his own knowledge of the language, such as *kom* 'become', *mankeer* 'lack', and *dink op* 'think of' to name but a few.

Van Rossem (2000) discusses these observations and concludes on the basis of the geographical distribution of the Zealandic and Flemish words

¹⁰ The cities of origin and the colonists' surnames suggest that the German colonists were all speakers of Low German (van Rossem 2013: 724).

¹¹ Zeeland (Dutch: *Zeeland*, literally 'Sea-land') is the most south western province of the current Netherlands and the seventeenth century Dutch Republic, consisting of a number of (former) islands or peninsulas and a neighbouring strip of Flanders (known as Zeeland-Flanders; Dutch: *Zeeuws-Vlaanderen*). It was one of the seven ruling provinces during the time of the Dutch Republic. Hesseling (1905: 64, fn 5) remarks that the term Zeelandic (*Zeeuws*) is vague, because the language differs from island to island, while it also shares many particularities with language varieties spoken in Flanders. The Dutch Meertens Institute provides many databases of data in and on Dutch dialects, including West Flemish and Zealandic at their website: <https://www.meertens.knaw.nl/cms/en/collections/databases>.

or features in question¹² that Dutch Creole is most influenced by the language varieties in the area between the towns of Bruges, Oostende, and Vlissingen, i.e., the coastal northern part of West Flanders and the western part of Zeeland-Flanders (2000: 58).¹³ Van Rossem's investigation of the origin of the early colonists' surnames corroborates these findings (2013b: 722).

Nevertheless, not all Dutch words in Dutch Creole can be traced back to the southwestern Dutch speaking area. Words with voiced fricatives in the onset, for example, must be derived from Standard Dutch (e.g., Dutch Creole *zee* 'sea' < Dutch *zee*, *zeil* 'sail' < Dutch *zeil*), and *zil* 'soul' < Dutch *ziel*), since the southwestern varieties (as do most Dutch dialects) have voiceless fricatives in the onset (van Rossem & van der Voort 1996: 21).

2.1.2.5. Early eighteenth century expansion of the Danish West Indies

The European St. Thomas planter population prospered financially in the first decade and a half of the eighteenth century, as a result of the governor's efforts to put the Brandenburg African Company out of the running and a revival of the Danish company's slave trade (Westergaard 1917: 126). Between 1692 and 1700, only fourteen new plantations were established with a total work force of 79 slaves, but between 1700 and 1705 there was an increase of thirty-seven new plantations with a work force of 280 slaves. During the period 1691–1715, the planter population increased by about half, but the enslaved population increased dramatically from about five hundred to over three thousand (Westergaard 1917: 126).

The Danes and the St. Thomas planters had long been wishing to extend their activities to the neighbouring island of St. John, but were held back by fear of the English, who, possessing a colony on St. John's other neighbour, Tortola, did not allow anyone on the island (Westergaard 1917: 128). But in 1717, the Danes claimed St. John, which was subsequently populated in the course of the following years by St. Thomas planters and their slaves

¹² I want to highlight the example of Dutch Creole *fraai* 'good, beautiful, proper/as it should' because of its high frequency and prominence. In a 1932 dialect questionnaire many informants from Zeeland indicated not to know the word *fraai*, while it is frequent in West Flemish occurring in the same wide range of meanings as it does in Dutch Creole (van Rossem 2000: 52).

¹³ Note that Zeelandic and Flemish – as is in fact well-known for the whole Dutch-German speaking area – are part of a continuum. But more pertinent is that the dialects spoken in the west of Zeeland-Flanders are in fact considered to belong to the West Flemish dialect family (Devos & Vandekerckhove 2005: 20). More particularly, they can be characterized as *Kustwestvlaams* 'coastal West Flemish', which retains many Ingvaeonic features from Saxon rule in the fourth–fifth century A.D. (Devos & Vandekerckhove 2005: 28).

(Westergaard 1917: 130). As on St. Thomas, the Dutch dominated St. John: in 1721, there were 39 planters, of which nine were Danes, five French Huguenot refugees, and almost all others Dutch (Westergaard 1917: 130). In fertile St. John, the plantations were on average almost fifty percent larger than in St. Thomas (Westergaard 1917: 130). The number of plantations steadily increased to 87 by 1728, and 109 by 1733 (Westergaard 1917: 165).

By the end of the 1720s, St. John had emerged as a sugar island with an increasing number of slaves per plantation (Westergaard 1917: 165–166). Many planters remained in St. Thomas and hired overseers to manage their plantations in St. John (Westergaard 1917: 166). Extremely harsh and adverse conditions in 1733, culminating with a terribly severe mandate prescribing abominably cruel punishment of slave insubordination or marronage (Westergaard 1917: 167) set the stage to “one of the most destructive rebellions in the West Indies”, in which those planters not killed were forced to retreat to St. Thomas (Dookhan 1994: 71).

In the same year, the Danish West India Company bought St. Croix, the island south of St. Thomas from the French. Its settlement in September of 1734 provided a welcome opportunity to many a planter affected by the 1733 rebellion to make up for their losses (Dookhan 1994: 71). The fertile and flat St. Croix also attracted St. Thomas planters with the prospect of bigger plantations with higher yields. There were already some British planters in St. Croix, but with the outbreak of war between Britain and Spain in 1739 they arrived in large numbers from the neighbouring English colonies in St. Kitts, Nevis, Tortola, and Virgin Gorda, so that by 1741 they were by far the largest group of planters (Dookhan 1994: 72). This explains why in St. Croix the English were culturally and linguistically dominant from the start, in contrast to the other two islands (Dookhan 1994: 72).

2.1.3. The emergence of Dutch Creole

There is a wealth of studies discussing scenarios for the origin of creole languages and it is beyond the scope of this section to discuss them all (some of them have been touched upon in §1.4.2 and §1.4.3).¹⁴ As mentioned in §1.3.2, creole formation could be seen as the outcome of the

¹⁴ Muysken (2013b: 717) reduces all theories of creole genesis to four main strategies: 1) relexification or transfer of L1 structures; 2) convergence of sub- and superstrate patterns; 3) reliance on universal principles; and 4) imitation of European vernacular varieties. Interpreting these strategies that led to the creation of creoles as “bilingual optimization strategies”, Muysken claims that “no single strategy may explain the genesis of Creoles. Rather, the four competing strategies have played a role in different combinations, in the genesis of specific Creoles, thus explaining why they do not form a uniform class of languages” (2013b: 717).

process of elaboration or expansion of a reduced predecessor (a pidgin or interlanguage). This process and its outcome can be approached from various perspectives, such as a cognitive (what processes take place in the speaker's mind), a social perspective (who speaks what to whom when) or a structural perspective (what linguistic properties does a creole language have that a pidgin or interlanguage does not have). This section is mainly concerned with the social perspective.

Dutch Creole is a language that was created as a result of European abuse of Africans they enslaved and forced to perform labour in the Caribbean. The two main questions of this section are: i) where and ii) when was Dutch Creole created, and iii) by whom?

2.1.3.1. *Where did Virgin Islands Dutch Creole emerge?*

Virgin Islands Dutch Creole is undoubtedly unique to the Danish West Indies. Writing in or shortly after 1767–1768, Oldendorp (see §2.1.5.1) reports the existence of “a singular creole language ... spoken by the blacks and many whites and not used anywhere else but on these islands”¹⁵ (2000: 682). Yet, Goodman (1985; 1988) argued that Dutch Creole was brought to St. Thomas by escaped planters from the nearby Dutch Antilles. He emphasized the considerable number of Dutch planters that had found refuge on St. Thomas “[w]ithin less than two months after the Danes arrived at St. Thomas (May 25, 1672)”, as the English had captured virtually all the Dutch leeward Antilles save for St. Martin (Goodman 1985: 73).

Moreover, he saw his claim reinforced by the 1688 St. Thomas census record which shows that “109 of the 385 whites had been born in the Dutch islands (85 of them in St. Eustatius)” (Goodman 1988: 291). Sabino (1990: 26–27) refutes Goodman's (1985) first part of the claim by pointing out that the enslaved brought along by the Dutch in 1672 were too few and given the colony's fragile infrastructure too isolated “to have had established a viable, creole-speaking society”; moreover, they were greatly outnumbered by later newly arrived Africans. With regards to the 1688 census data, Sabino (1990: 30–31) shows that in 1691 only 9% of the enslaved population can be claimed to have been brought from St. Eustatius. Thus, the case for a St. Eustatius origin of Dutch Creole is not so strong.

By contrast, the dominant presence of Dutch speakers make for very favourable circumstances for Dutch Creole to have emerged on St. Thomas, as most researchers assume and Sabino (1990; 2012) explicitly argues for.

¹⁵ “eine eigene criolische Sprache, ..., von den Schwarzen und vielen Blanken geredet und sonst nirgends als auf diesen Inseln gebraucht wird.”

When the Moravian missionaries (see §2.1.5.1) arrived on the Danish West Indies between 1732 and 1736, they reported Dutch Creole as the language of the enslaved and the letters written by some of them in Dutch Creole around 1740 also testify to this (see §2.2.3). This supports the claim that Dutch Creole emerged on St. Thomas and spread from there to St. John and St. Croix as the Danish West Indies expanded in the 1720s and 1730s.

2.1.3.2. *Who created Virgin Islands Dutch Creole?*

Dutch Creole is strongly linked to the Afro-Caribbean population in the Danish West Indies. Even though it was also spoken by members of the Euro-Caribbean population, reports on how the latter group learnt the language always point back to the Afro-Caribbean population. This is the case in Oldendorp's (2000: 358) report that the Euro-Caribbean population learnt to speak Dutch Creole, partly because "the white children are taken care of by slave women, partly [because] they grow up among slave children"¹⁶ (translation mine).

A similar situation existed in eighteenth century Suriname, where the "creole mama", usually an elderly black woman taking care of the colonists' younger children "is assumed to have provided an important model for the acquisition of language by these children, beside their parents and other relatives" (Arends 1995: 20). Here again, the Euro-Caribbeans learn the creole from the Afro-Caribbeans. Similarly, DeCamp (1971a: 19), citing Cassidy (1961: 21–23) writes that "all the early accounts (dating from the eighteenth century in Jamaica, for example) report that the white planters and their families were learning the creole from the slaves, not vice versa."

Following on Muysken (2013b: 711) who reports that "there is increasing evidence that much language behavior emerges through interaction," the emergence of Dutch Creole is undoubtedly linked to linguistic interaction of various kinds among Africans on St. Thomas. Yet, the fact that the Dutch Creole lexicon consists primarily of words from European languages (see den Besten & van der Voort 1999) is one of the indications that the creation of Dutch Creole results from the interaction between Africans and Europeans as well. Language creation is not caused by one single agent, but there are various ones with various social factors involved in the process. (See Muysken 2013b for discussion of four different strategies of bilingual speaker optimization strategies all of which may play a role in language creation to varying degrees and in different

¹⁶ "Die blanken Kinder werden teils von Negerinnen gewartet, teils wachsen sie unter Negerkindern auf und lernen also zuerst die criolische oder Negersprache."

combinations depending on the social setting.) Nevertheless, the discussion below takes the perspective of the Afro-Caribbean speaker.

As much as the creation of Dutch Creole must have been a collective effort, there must have been considerable variation in the linguistic repertoires of the Africans in seventeenth century St. Thomas. There have undoubtedly been individuals who acquired the language of their European owners ((regional) French, English, Danish, or Dutch) or the island's *lingua franca*, a (West Flemish?) variant of Dutch, as suggested by van Rossem (2013b: 717) and in fact documented for some eighteenth century Afro-Caribbean Dutch Creole speakers such as Cornelius (Degn 2000) and Rebecca (Sensbach 2005). In the same vein that some Dutch Creole speakers could speak Dutch, it is very likely that some Dutch Creole speakers developed different styles of Dutch Creole, e.g., for in-group versus out-group communication, or for further social differentiation within the Afro-Caribbean population.

Arends (2001: 304) sketches this scenario for Suriname characterising its black society as a “socially stratified” society, in which “different groups of Blacks had differential access to the language spoken by the Whites as well as differential motivation to learn it” and as a result of which “a spectrum of varieties may have developed from quite early on.” Thus, it is probable that the linguistic repertoires of eighteenth century Afro-Caribbeans contained styles or registers that can be placed in a continuum with the locally spoken varieties of Dutch.¹⁷

The locally-born planter population used a variety of Dutch Creole as a community language of their own (see §2.2.1). It is therefore not inconceivable that another continuum of repertoires developed between Dutch Creole as commonly spoken by the enslaved and Dutch Creole as spoken by the planter population. In fact, such continuum is perhaps more likely later in the eighteenth century, as the influence of Dutch seems to have given in (see §2.1.6) while Dutch Creole was still in use by the planter population, as evidenced by Magens (1770) and accounts in Oldendorp (2000) (see §2.2).

For the eighteenth century Danish West Indies linguistic space, a complex of diverse registers and styles that can be placed and shift along multiple continua can accommodate the possibility that besides the two continua mentioned above, the Afro-Caribbeans in close contact with the Moravian missionaries (see §2.1.5.1) are likely to have adapted their speech to the latter. The concept of a continuum may be relevant for such a

¹⁷ This assumption is also in correspondence with the views of Alleyne (1971; 1980) and LePage (1960; 1977) that a continuum of varieties existed in the colonial society from very early on.

situation for two reasons: i) individuals may differ in the manner and degree with which they accommodate their speech (and thus adjust or expand their repertoires); and ii) the speech of some Afro-Caribbeans may have been influenced not by direct contact with the missionaries themselves, but by the adapted speech of other Afro-Caribbeans.

2.1.4. The ancestral languages of the enslaved population in the formative period of Dutch Creole

For other creole or contact languages, it has been shown that the ancestral languages of early groups of speakers have influenced parts of the TMA system (and virtually any other language domain).¹⁸ Previous studies on Dutch Creole (e.g., Stolz & Stein 1986; Sabino 1990; 2012) pointed to the Danish Gold Coast – the eastern part of the coast of modern-day Ghana – as the most important area from where the enslaved Africans of the Danish West Indies were taken in the late seventeenth and early eighteenth century. Consequently, the general assumption was that the major languages spoken in relative vicinity to the Danish Gold Coast – Akan, Ewe, and Ga – were the languages that had the most potential to have a lasting influence on the structure and pronunciation of Dutch Creole. However, Paesie's (2008) data on Dutch interlopers¹⁹ and the recent update of the Voyages Database (2016) shed a new light on their origin in the late seventeenth and early eighteenth century.

The Voyages Database (2009) contains information from slave trade records which give us an impression of the number of Africans brought to St. Thomas, who brought them, and, if known, from where.²⁰ Between 1670–1710, more than 22,500 Africans are documented to have been sold as slaves and taken from West Africa to St. Thomas. Of these, 15,780 were sailed across the Atlantic for the Brandenburg African Company (see Appendix B and §2.1.2.2), who according to Weindl (2008: 257) sold most of them outside St. Thomas. The remaining 6,450²¹ people were sold to the Danish West Indian Guinea Company or to planters on St. Thomas. There were only three nations involved in providing the St. Thomas planters with

¹⁸ Examples are discussed per category in the following chapters that deal with those categories.

¹⁹ I thank Peter Bakker for bringing this work to my attention.

²⁰ See Appendix A for an overview of all documented ship journeys to St. Thomas up to and including 1710.

²¹ The Brandenburg African Company bought 288 people from Dutch interlopers between 1699 and 1703 (see Appendix B). On the assumption that the company also sold these people outside St. Thomas, they have not been included in the counts on which Table 2.1 is based.

an enslaved workforce: Dutch interlopers (57%), the Danish (37%), and the British (7%) (see Table 2.1).

Table 2.1: The number of enslaved disembarked at St. Thomas per trading nation (data from Voyages Database 2009 and Westergård 1917)

	Denmark	Netherlands	Great Britain	Portugal	Total
<i>1670–1675</i>	103 ^a	-	-	10	113
<i>1676–1680</i>	-	16	195	-	211
<i>1681–1685</i>	-	-	22	-	22
<i>1686–1690</i>	200	-	109	-	309
<i>1691–1695</i>	-	-	-	-	-
<i>1696–1700</i>	1,066	1,458	-	-	2,524
<i>1701–1705</i>	295	563	97	-	955
<i>1706–1710</i>	706	1,610	-	-	2,316
Total	2,370	3,647	423	10	6,450

a = Sabino (2012) estimates about another 100 Africans to have arrived in St. Thomas in 1674, based on Westergård's (1917: 40) comment that the ship that undertook the voyage in 1673 had sailed out again in 1674. Westergård suggests that it might have been used by the Danish West India Company again (1917: 40), but since it is not clear whether this was actually the case, and if, how many Africans were transported, I do not include this voyage in Tables 2.1 and 2.2 and Appendices A and B.

The earliest Africans on St. Thomas as a permanent Danish colony were the enslaved brought along by the planters arriving in 1672 from neighbouring islands, as discussed in §2.1.3. In 1673, the first people taken directly from West Africa arrived by a ship of the Danish African Company of Glückstadt (which merged into the Danish West Indian Guinea Company in November of 1674, Westergaard 1917: 40). The Danish companies traded from fort Christiansborg near Accra, known then as the Danish Gold Coast. Their first trade partners were the Ga, who were in war with the Akwamu (Sabino 2012: 66).

Talking about the seventeenth century, Daaku states that “[a]ll the evidence suggests that it was the victims of wars and raids that provided the main bulk of the slaves. In such a situation even the most powerful member of society could not be said to be immune from becoming a slave” (1970: 30). Thus, we can assume that probably a considerable number of the 103 Africans transported by the Danes in 1673 (Table 2.1; Appendix A) were Akwamu-speaking (one of the Akan-languages, see below) war victims of the Ga.

The same does not count however for the Danish voyage from 1688. Since it was not a company ship, we cannot assume that the enslaved embarked at the Danish Gold Coast: they may have embarked anywhere along the West African coast.²²

Up to 1688, each new group newly arrived Africans had an enormous impact on the composition of the enslaved population (Table 2.2). Yet, besides the 1673 voyage, we are completely in the dark as to where the Africans came from. In 1680, the English delivered a group of Africans bigger than the entire enslaved population of St. Thomas at the time (Appendix A; Table 2.2), but just like for the equally significant Danish shipment of 1688, these people may have come from any place along the West African coast. The British had a trading fort at Cape Coast, located some 140 km westwards of Accra, but the Voyages Database (2009) shows that the places where the British purchased Africans in 1680 were very diverse: in descending order, they were current day Benin (1804), the Bight of Biafra (1690), West Central Africa (1444), the Gold Coast (1285), and Gambia (239).

Table 2.2: The newly arrived Africans in proportion to those already present^a

	Already present	Newly arrived	
<i>1673</i>	[a few]	103	>100%
<i>1680</i>	175	195	111%
<i>1688</i>	422	200	90%
<i>1690</i>	[446]	109	24%
<i>1691</i>	555	-	-

^a = The data of the enslaved St. Thomas population have been taken from Westergaard (1917: 40, 318), except the data for 1680, taken from Dookhan (1994: 70). There were no demographic data available for 1690. For practical purposes, I have therefore assumed the enslaved population already present in 1690 to equal the population of 1691 (555) minus the newly arrived of 1690 (109). The thus estimated population size of the enslaved of 1690 combined with the reported increase in the number of plantations after 1688 as a result of governor Esmit's mandate (Dookhan 1994: 70–71), suggests that for 1688 the newly arrived of that year (200) are included in the population size as reported in the census data (422). Accordingly, the arrivals percentage of Table 2.2 for 1688 has been calculated as follows: $(422-200)/200 \times 100$. Obviously, the numbers used are only illustrative and are an approximation to put the numbers given in Table 2.1 into perspective.

²² I am much obliged to Johan Heinsen (pc.) for pointing this out to me.

It is only starting from 1696 that the point of embarkation has been frequently recorded. In the period 1696–1700, there is a considerable number of people (between 31% and 42%) from the Danish Gold Coast (Table 2.3). However, there is an even higher or equal number of people in this period of which we do not know their region of origin (42%). Since they were all brought by Dutch interlopers (Table 2.1), who, according to Paesie (2008), most often brought enslaved people from Angola or West Central Africa (Voyages Database 2016, see Appendix A), it is not unlikely that a considerable number of the 42% of unknown origin came from West Central Africa too.

The region of origin has been documented for all West Africans deported in the period 1701–1704. The majority of them is from West Central Africa/Angola (59%), and considerably smaller groups departed from Ouidah (17%), the Gold Coast (14%), and Gambia (10%). Between 1707 and 1710, an enormous amount of people from West Central Africa/Angola were brought to St. Thomas (1,229, which is 19% of all people deported to St. Thomas between 1796 and 1710). In this period more people from the Gold Coast arrived than in the previous years, but their number is small compared to the West Central Africans arriving in this period.

Table 2.3: Number of enslaved per region of embarkation per five year period

	1696–1700		1701–1704		1707–1710		Total	
<i>Gambia</i>			97	10%			97	2%
<i>DGC</i>	786–	31%	134 ^b	14%	208	9%	1,128–	17%
	1,066 ^a	–42%					1,408	–
								22%
<i>Little</i>	0–280	<11%					<280	<4%
<i>Popo</i>								
<i>Popo</i>					63	3%	63	1%
<i>Ouidah</i>			161	17%	122	5%	283	4%
<i>Calabar</i>					85	4%	85	1%
<i>WCA</i>	403	16%	563	59%	1,229	53%	2,195	34%
<i>unknown</i>	1,055	42%			609	26%	1,664	26%
Total	2,524		955		2,316		6,450	100%

DCG = Danish Gold Coast; WCA = West Central Africa

a = The Voyages Database (2009) informs us that the ship in question was loaded first in Christiansborg (Accra) and then in Little Popo (Aného). But of the 280 Africans who disembarked at Charlotte Amalia (St. Thomas), we do not know how many embarked at Christiansborg and how many at Little Popo.

b = In this time period, there is one ship documented (see Appendix A, the ship from 1704) where people from the Danish Gold Coast had been forced to

embark (13+145=158). The total amount of people embarking the ship was 349, but only 295 of them arrived in St. Thomas. It is impossible to know what percentage of those who arrived had left from the Danish Gold Coast. The estimation I use in Table 2.3 is based on the percentage of those who embarked from the Danish Gold Coast (158 out of 349 = 45,3%) applied to the number of people disembarking (45,3% of 295 = 134).

Now we have an idea of the regions where the enslaved African population of St. Thomas came from, but what can we infer of the languages they spoke? Between 1796 and 1710, about onethird of the people came from the Danish Gold Coast. In 1680, the Akwamu had conquered the Danish fort Christiansborg and in 1682 the Danes started trading with the Akwamu (Wilks 1957, cited in Sabino 2012: 66). Justesen (1980: 350–360, cited in Stolz & Stein 1986: 118) states that the Akwamu kings continued selling Ga, Akyem, and Ewe-speaking prisoners “till their final defeat in 1730”. Like Akwamu, Akyem is one of the Akan-languages. The people who were brought to St. Thomas from the Danish Gold Coast are assumed to be predominantly speakers of Akan-languages, Ewe or Ga (Stein & Stolz 1986; Sabino 1990; 2012).²³

So far, these languages have been assumed to be the most likely ones to have influenced Dutch Creole, since it appeared from the records that the majority of the enslaved in the late seventeenth and early eighteenth century came from the Danish Gold Coast. The records about Dutch interlopers in Paesie (2008) and the very recently updated Voyages Database (2016) show that there was a much bigger group of people from West Central Africa/Angola, who must have spoken Bantu languages from that region.

Parkvall (2000: 153) investigates African substrate influence for creole features from a range of West African languages as wide as possible. For Dutch Creole, he finds Akan and Ewe influence for many features, but he also finds Bantu influence in the lexicon and potentially in the phonology. Parkvall points to the first two decades of the eighteenth century in which Bantu could have a decisive impact, very much in line with the data in Table 2.3. The demographic data urge us to take the West Central African Bantu languages into account besides Akan, Ewe, and Ga when investigating substrate influence from the ancestral West African languages of the enslaved population of St. Thomas. However, since the overwhelming presence of speakers of Bantu languages at the beginning of the eighteenth century was revealed only once this dissertation was already

²³ For later periods in the eighteenth century, there are contemporary reports of which part (region, country, or sometimes city/town) of Africa some of the enslaved came from (see e.g., Oldendorp 2000 and Sebro 2010).

almost completed, I have only focused on the three languages spoken near the Danish Gold Coast in Chapters 3–6.

Akan is a macro-language term that refers to a cluster of mutually intelligible languages spoken in current day Ghana: Agona, Akuapem, Akwamu, Akyem, Asante, Assin, Bron, Buem, Denkyira, Fante, Kwawu, Twifo, and Wassaw (Agyekum 2012: 24). Ewe is a language of the Gbe language family spoken in western Ghana and southern Togo.²⁴ Just like Ga and Ewe, Akan is a Kwa language and all three are not too distantly related (see Ameka & Kropp Dakubu (2008b: 4) for a tree model of the Kwa language family).

2.1.5. Missionary activity in the Danish West Indies

2.1.5.1. *The Moravian mission*

The *Unitas Fratrum* ‘Unity of the Brethren’ was founded in 1722, when the German nobleman Count Nikolaus Ludwig von Zinzendorf granted Moravian protestant religious refugees, prosecuted in their own country, a part of his land, which was to become the village of Herrnhut, the centre of the Moravian Brethren.

The inspiration for the mission to the Danish West Indies was sparked in 1731, when Count von Zinzendorf and other Moravian Brethren met Anton Ulrich at the coronation of the Danish king Christian VI. Ulrich, born enslaved in St. Thomas, had been taken to Denmark as a personal servant of a director of the Danish West India and Guinea Company, where he had been schooled in Christianity and baptized (Sensbach 2005: 49). He urged the Moravians to bring Christianity to the enslaved (Sensbach 2005: 49). They were so inspired that they prepared their first mission to St. Thomas, realized in 1732 when the first two young Moravians arrived in St. Thomas, the potter Leonhard Dober and the carpenter David Nitschmann (Stein 1986a: 4). But it was not until the second attempt with the arrival of Friedrich Martin and his company in 1736 that the Moravian mission truly started to take effect (Stein 1986a: 5).

In that same year, Martin started to teach the Afro-Caribbeans who attended the Moravians’ activities – and who were not able to do so already – to read at their own request (Oldendorp 2002: 158). The Moravian missionaries spoke their native (Low) German language, High German, and that which they could learn from their fellow travellers on board of the ship to St. Thomas, which must have typically been some Dutch, which they knew was an important language in the Danish West Indies (Stein 1985: 438). For want of knowledge of Dutch Creole, Martin communicated with the Afro-Caribbean congregation in Dutch, which some could speak and

²⁴ In Togo, the name *Ewe* is also used for another Gbe language, Mina or Gen.

translate to others who could not (Oldendorp 2002: 158). The Moravians taught those who wished to read – and some were even taught to write – in Dutch, since they only had a Dutch translation of the Bible and Dutch primers to serve as educational material (Stein 1985: 440). The letters that result from the Moravians' literacy practices – of which many are written in Dutch Creole – are discussed in §2.2.3.

Initially, the Moravian mission - which had been extended to St. Croix from the start and later also to St. John - met with violent resistance by the planters. The enslaved were forbidden to attend Moravian gatherings and violently punished if they persisted in attending, but this did not stop them from attending. After the intervention of Count von Zinzendorf, who visited St. Thomas in 1739, the enslaved were permitted to attend the gatherings but only in the evening once their daily work was done (Dookhan 1994: 191).

But the success of the Moravian mission must largely be attributed to another factor: the enslaved Africans had lost their kinship ties by having been captured, sold and taken to the Caribbean. The Moravian mission offered an alternative kinship system that strongly appealed to the enslaved (Sensbach 2005: 92–93). Certain Afro-Caribbeans were assigned *helpers* to guide and stimulate others in their faith, to get acquainted with others around them and their spiritual condition so as to attract and get involved more people (Sensbach 2005: 94). For this function, the Moravians choose those people who had already attained some form of leadership within the slave community (Sensbach 2005: 95). But these helpers could also instruct the catechumens or even preach in services. Thus, the enslaved could assume positions of responsibility, respect and leadership, initially within the Moravian church but consequently also within the community as a whole (Dookhan 1994: 196).

The Moravians' close ties with the enslaved community lasted well into the nineteenth century: in 1793 the Danish government saw the Moravians – and not the Danish Lutheran missionaries, see §2.1.6 – as most qualified to educate the enslaved (Hall 1992: 193). Further evidence is found in Nissen's remarks on the size of the Moravian congregations in St. Thomas in 1837, which at that time is smaller than it used to be (1838: 204–205):

Their labours are principally confined to the slaves belonging to the estates – and a few slaves as well as free coloured people in town, are connected with them. As the number of slaves diminish, the number of their members decreases. The whole number of their congregation is about 15 or 1600, of which 800 belong to Niesky, and 700 to Neuherrnhut.

After the abolishment of slavery in 1848, the Moravians' rigid clerical discipline appealed less and less compared to the other, much more liberal church denominations (Degn 2000: 495).

2.1.5.2. The Danish Lutheran mission

In 1757, the Danish Lutheran church established a separate mission with the exclusive aim of proselytizing the enslaved (Dookhan 1994: 185), but of the ten missionaries sent out that year, "one died on the voyage, two were assigned to St. Thomas, one to St. John, and the remaining six to St. Croix" (Dookhan 1994: 186).

The rate of mortality among the Lutheran missionaries was high as a result of overwork due to high demands, and diseases (Hall 1992: 193). About three years into the mission, only three missionaries were still alive, and three of the eight missionaries who joined in 1759 and 1766 died within one year (Dookhan 1994: 186).

Consequently, by 1773 there was virtually no Lutheran missionary activity anymore outside of Charlotte Amalie (St. Thomas), and Frederiksted and Christiansted (St. Croix) (Hall 1992: 193).

2.1.6. Language shift to English Creole and English

In the eighteenth century, Dutch Creole was widely spoken on St. Thomas and St. John, but on St. Croix it was restricted mainly to the eastern part of the island. We already saw in §2.1.2.5 that St. Croix was culturally and linguistically dominated by Englishmen from neighbouring colonies virtually since its acquisition in 1733. Since these English planters had brought with them their slaves who already spoke an English Creole, the resulting situation was that in a large part of St. Croix particularly at the entire West End an English Creole was spoken (Oldendorp 2000: 682).

However, Dutch Creole could not maintain its position as the language of St. Thomas and St. John for very long. In the nineteenth century, English had become the dominant language on these islands, too, and Dutch Creole speakers massively shifted to English or English Creole and Dutch Creole was increasingly less transmitted to new generations. The following three factors contributed to its decline on St. Thomas: 1) the growing importance of trade in the harbour of Charlotte Amalia with English as the main language of communication; 2) migration to the town; and 3) the growth of the free Afro-Caribbean population.

The establishment of English as the dominant language of Charlotte Amalia is related to its importance as a free port and the strong trade relations the Danish West Indies maintained with British American colonies. The first steps in the creation of St. Thomas as a free port were

effectuated in 1724 (Westergaard 1917: 194–195), but it was only in 1764 that the free port legislation opened trade with other foreign colonies in America to ships of all nations (Dookhan 1994: 91) and “actively encouraged the residence of foreign merchants in St. Thomas” (Hall 1992: 23). But the Danish West Indies had already developed strong trade relations with the surrounding Caribbean colonies (Dookhan 1994: 93). Already by the early eighteenth century a considerable amount of the St. Thomas trade took place with British American colonies, including the mainland colonies later to become the United States of America, and these trade relations only intensified in the course of the century (Dookhan 1994: 93). These circumstances must have laid the foundation for English as the language of trade in St. Thomas. In the late 1760s, Oldendorp reports how use of the English language is indispensable in the Danish colony’s towns, “where without [English] one cannot even buy something with many a merchant” (2000: 357–358).²⁵

With the British capture of St. Eustatius in 1781, St. Thomas entered a period of unprecedented economic prosperity, “benefit[ing] greatly from the transfer [] of American trading interests [from St. Eustatius to St. Thomas]” (Dookhan 1994: 96). But concurrently the position of English strongly gained force, as mainly English speaking merchants came to St. Thomas to continue their activities there after the capture of St. Eustatius (Van Diggelen 1978: 69). Holm (1989: 327) also mentions “a great influx of foreigners who usually knew English better than Dutch” “in the late eighteenth century” as a result of Danish neutrality making it “one of the few safe havens for commerce” amidst warfare between European powers in the Caribbean. The economic welfare created many job opportunities in town in which “slave labor occupied a position of cardinal importance”, as a result of which the number of urban slaves strongly increased after 1782 (Hall 1992: 88).²⁶

Thus, at the end of the eighteenth century, there was a numerical preponderance of the enslaved population in Charlotte Amalia: by the

²⁵ The full passage from Oldendorp reads: “Selten wird man aber jemand antreffen, der nicht englisch, deutsch oder ccriolisch verstehen sollte. Diese drei Sprachen sind zum reden mit Weißen und Schwarzen unentbehrlich, sonderlich die englische in den Städten, wo man ohne dieselbe bei manchem Krämer nicht einmal was kaufen kann.” ‘Rarely will one find someone who cannot understand English, German, or [Dutch] Creole. These three languages are indispensable for communication with whites and blacks, especially English in the towns, where one cannot even buy anything without it with many a merchant.’ [translation mine] (Oldendorp 2000: 357–358).

²⁶ These developments count for St. Thomas as much as for the towns of St. Croix (Hall 1992: 87–88).

1790s, they constituted 73% of its population (Hall 1992: 90). The town was also the historical living place of the free Afro-Caribbeans. In the 1740s, the then governor declared that the free Afro-Caribbean population was only to reside in specific areas of the towns reserved for them (Hall 1992: 147). But the free Afro-Caribbean population only started increasing strongly in number in the first two decades of the nineteenth century: by 1815 the free Afro-Caribbean population had surpassed the Euro-Caribbean population on all three islands (see Table 2.4).

Table 2.4: Population of the Danish West Indies 1755–1815 (data taken from Hall 1992: 5)

		1755	1770	1789	1797	1815	1835	1846
ST	Whites	325	428	492	726	2,122	8,707 ^a	9,579 ^a
	Freed-men	138	67	160	239	2,284		
	Slaves	3,994	4,338	4,614	4,769	4,393	5,315	3,494
SJ	Whites	213 ^a	118	167	113	157	532 ^a	660 ^a
	Freed-men		?	16	15	271		
	Slaves	2,031	2,302	2,200	1,992	2,306	1,943	1,790
SC	Whites	1,303 ^a	1,515	1,952	2,223	1,840	6,805 ^a	7,359 ^a
	Freed-men		?	953	1,164	2,480		
	Slaves	8,897	18,884	22,488	25,452	24,330	19,876	16,706

ST = St. Thomas; SJ = St. John; SC = St. Croix

^a = Data include both freedmen and whites

The early nineteenth century must have been the decisive period when English and English Creole were established as the main language(s) of the St. Thomas society, because it was then that the population of Charlotte Amalia increased drastically (Table 2.5).

Table 2.5: The urban-rural distribution of the St. Thomas population 1789–1838 (data taken from Hall 1992: 90)

Year	Urban	%	Rural	%	Total
1789	2,085	40	3,181	60	5,266
1791	2,087	28	5,266	71	7,353
1797	2,908	51	2,826	49	5,734
1831	11,071	82	2,421	18	13,492
1838	8,887	78	2,546	22	11,433

The rule of the British will have by itself provided stimulation for language shift to English – as also suggested by e.g., Hesselning (1905: 26) and Sprauve (1981, cited in Sabino 2012: 74). But another account for the shift to English posits that English was favoured over Dutch Creole as the language of “modernity, economic opportunity, and freedom” particularly by those who became free at the beginning of the nineteenth century (Sabino 2012: 72).

By 1881, the language shift to English and English Creole had progressed to the point that Dutch Creole was only still spoken on St. Thomas by older generations in more remote places. However, it was still spoken on a daily basis on St. John, according to Pontoppidan’s (1881) report:

Now [Dutch] Creole has almost totally disappeared on St. Croix, also in St. Thomas in town only sporadically elderly women are found who still are familiar with the language. Only in the more remote places on the countryside, like in the missions of the Moravian Brethren in ‘Neu Herrnhut’ and ‘Niesky’, and on the small, decayed and halfway neglected island of St. John it has maintained itself better. There it is mother- and daily tongue of the older generation, which speaks English poorly and with difficulty, but Low-Creole with fluency; the young on the other hand, have adopted English, and one can certainly say that the [Dutch] Creole language will very soon be a dead language; in one generation one will hardly find anyone who can still speak it.²⁷

(translation cited from Van Rossem & van der Voort 1996: 32–33)

In light of the demographic developments at the start of the nineteenth century, the fact that Dutch Creole was better preserved on St. John than on St. Thomas can be explained by the fact that St. John did not have a harbour or town economy. Instead, its economy was still based on sugar plantations, which only ceased to be run until within twenty years after the abolishment of slavery in 1848 (Olwig 1981: 61). After that, the sugar plantations were either transformed into less labour intensive cattle estates,

²⁷ “Jetzt ist Kreolisch auf St. Croix fast ganz verschwunden, auch in St. Thomas werden in der Stadt nur noch sporadisch einige alte Weiber gefunden, denen die Sprache noch geläufig ist. Nur auf mehr entlegenen Plätzen auf dem Lande, wie in den Missionen der mährischen Brüder zu „Neu-Herrnhut“ und „Niesky“, und auf der kleinen, verkommenen und halb verwilderten Insel St. Jan hat sie sich besser erhalten. Sie ist da Mutter- und Umgangssprache der älteren Generation, welche schlecht und mit Schwierigkeit Englisch, aber Platt-Kreolisch mit Geläufigkeit spricht; die Jüngeren dagegen haben Englisch adoptirt, und man kann sicher sagen, dass die Kreolensprache sehr bald eine tode Sprache sein wird; in einem Menschenalter wird man schwerlich noch Jemand finden, der es sprechen kann” (Pontoppidan 1881: 131).

abandoned entirely, or divided into smaller lots that the formerly enslaved could buy to farm their own land (Olwig 1981: 61). Additionally, they could engage “intermittently in wage labor on or off the island” (Olwig 1981: 61).

Under these circumstances, Dutch Creole could survive into the twentieth century. In 1839, the Moravians had stopped using Dutch Creole in their services in favour of English, but some older missionaries proceeded to use Dutch Creole, for personal reasons but also because of the high number of Afro-Caribbeans who did not understand English (Larsen 1950: 158).

Throughout the twentieth century, Dutch Creole speakers provided essential data of the language as spoken by the Afro-Caribbean population (see §2.2.6.5 and §2.2.6.6 for more information on these speakers), although English or English Creole had become their dominant language (de Josselin de Jong 1924: 70). None of the Dutch Creole speakers interviewed in the 1930s by Nelson (see §2.2.6.5) had spoken the language in recent years (van Rossem 2013a: 18).

Nevertheless, there remained a handful of speakers in the 1960s and 1970s and it was only in 1987 that Dutch Creole died out with the decease of its last speaker.

2.2. The speakers and writers of Dutch Creole

2.2.1. Various groups of Dutch Creole language users

As discussed in §2.1.3.2, Dutch Creole was not only spoken by people of African descent, but also by people of European descent born in the Danish West Indies (Oldendorp 2000: 357; Magens 2009). A third group of Dutch Creole language users were the Moravian and the Danish Lutheran missionaries (discussed in §2.1.5), who learnt Dutch Creole as a second language and produced the majority of the eighteenth century Dutch Creole documentation (see §2.2.5).

For ease of reference, I introduce the term ADC to refer to Virgin Islands Dutch Creole as it was spoken by the Afro-Caribbean population, and EDC to refer to Virgin Islands Dutch Creole as spoken by the Euro-Caribbean population. Similarly, I use the term MDC to refer to Dutch Creole as used by the missionaries. Pontoppidan (1881: 131) used the terms Low Creole (*Platt-Kreolisch*) and High Creole (*Hoch-Kreolisch*) to refer to the distinction between daily spoken ADC and the ecclesiastical MDC. Sabino (1990: 5) refers to the language of the Moravians’ and Danish Lutheran documents as Liturgical Creole, and “retain[s]” the terms Hochkreol and Negerhollands “to designate respectively the language

varieties of the white and black native-born populations” of the Danish West Indies, which corresponds to EDC and ADC, respectively. For this dissertation, I have chosen to use the rather technical or clinical terms ADC, EDC, and MDC to avoid the confusion of the ambiguous use of the term *Hochkreol* or High Creole and the issues with the name *Negerhollands* (see §2.1.1), particularly since none of the above mentioned names is based on a language name used by the users of the language variety in question.

Essentially, the terms ADC and EDC refer to spoken language, but the Dutch Creole data discussed in §§2.2.3–2.2.6. are all written. Whenever I refer to data as ADC data, I do so on the basis that I consider the language used in these sources to reflect ADC rather than any other variety of Dutch Creole, without making assumptions about the accuracy with which the particular written sources reflect the actual spoken language (the same counts for EDC). The latter is an issue that needs to be determined independently. The MDC data have issues of a slightly different nature. The issue is not so much whether they are a valid representation of MDC as spoken by the missionaries, but to what extent the MDC reflected the spoken language of ADC or EDC speakers (and which speakers).

Another issue is individual variation among ADC speakers, and among EDC speakers: the terms ADC and EDC should by no means be interpreted as referring to two invariable varieties. Moreover, it should be taken into account that some Afro-Caribbeans (particularly relevant for the eighteenth century) were also competent in Dutch and/or used in interaction with the Euro-Caribbean population or the missionaries a variety of Dutch Creole that more closely resembled Dutch Creole as spoken by these two groups. Finally, there is also considerable individual variation between the missionaries (see e.g. Hesseling 1905; Hinskens & van Rossem 1995; van der Voort & Muysken 1996).

2.2.2. The NEHOL Database

Most of the primary Dutch Creole sources consulted and discussed in the following sections (i.e., §§2.2.3–2.2.6) have been digitalized, partly annotated, and collected in the *Negerhollands Database* (NEHOL), which can be accessed and searched at <http://corpus1.mpi.nl>.²⁸ The database is the result of the data curation project financed by the CLARIN-NL-10-010 grant to Pieter Muysken and Margot van den Berg, with myself as project

²⁸ The database comes with a manual, providing information on its structure, and various other aspects of its content, including the annotations used and a list with full references.

researcher, in collaboration with The Language Archive located at the Max Planck Institute for Psycholinguistics Nijmegen, who host the database.²⁹

The Dutch Creole data consulted for Chapters 3–6 are discussed in the following four sections, grouped according to the language variety used, as discussed in §2.2.1: MDC, EDC, or ADC respectively. But first the earliest sources, the slaves' letters are discussed. Due to their specific nature, explained in §2.2.3, they are considered separately.

For a more complete overview of all eighteenth century texts, see Stein (1986b), van Rossem & van der Voort (1996), and van Rossem (2015).

2.2.3. Letters (1738–1762)

The earliest sources are the letters written by and in name of the enslaved Afro-Caribbeans that were re-discovered by Peter Stein in the early 1980s in the archives of the Moravian Brethren in Herrnhut, Germany. They resulted from the Moravians' literacy classes (see §2.1.5.1). There are about 150 letters in the archives of the Moravian Brethren in Herrnhut, Germany (e.g. Stein 1985: 439; 1986b; 1995), of which ten are accessible in the NEHOL Database. The logical consequence of the fact that the Moravians' students were taught to read and write in Dutch is that Dutch was also the target language of many of the letters written. But although there were a few students who had good command of Dutch, there is interference – to varying extents – from Dutch Creole in most of the letters. But there are also letters written in a very stylized and Europeanized form of Dutch Creole, that initially lacked even its most characteristic features such as the preverbal TMA markers (see Stein 1985; 1995).

The letters available in the NEHOL database and used for the studies in Chapters 3–6 are presented in Table 2.5. For a proper interpretation of the language of the letters, it is essential to realise that the fact that some of the Dutch Creole letters lack certain Dutch Creole features (that do occur in other letters) does not mean that these features did not yet exist at the time of writing in spoken Dutch Creole. Such is argued by Stein (1995) for the preverbal TMA markers. As shown in Table 2.5, the earliest letters (1–2) do not contain any preverbal TMA markers at all, the letters (3–6) written between 1739 and 1741 contain only tense markers, whereas the letters (7–11) written between 1752 and 1762 contain tense and aspect markers. The absence of the aspect markers in the letters before the early 1750s can be regarded as the result of the authors unfamiliarity with Dutch Creole as a

²⁹ This project is a continuation of the digitalization project of the missionary manuscripts carried out by Cefas van Rossem and Hein van der Voort in the early nineties, which was supported by a NWO grant to Hans den Besten and Pieter Muysken. I wish to gratefully acknowledge the contribution of all involved.

written language,³⁰ the fact that they were trying out sometimes Dutch sometimes Dutch Creole as the target language of the letters, differences in the audience design (Stein 1985), and probably they had to get acquainted to the non-European elements (Stein 1995: 47–49). This interpretation is supported by the fact that other creole features, such as bare plurals and lack of inflectional plural marking, also increase significantly in frequency in the letters after 1750 (Stein 1995: 50).

Table 2.5: Letters available in NEHOL and their use of preverbal TMA markers

Nr.		N ^o . words	(h)a	sa(l)	ka	le
1	Peter letter (1738)	100	-	-	-	-
2	letter to the Danish king (1739)	200	-	-	-	-
3	Marotta letter (1739)	200	x	x	-	-
4	Zinzendorf farewell letter (1739)	1,200	x	x	-	-
5	Lenathge letter (1741)	100	x	-	- ^a	-
6	Domingo Gesoe letter (1741) ^b	186	x	x	-	-
7	Domingo Gesoe letter (1752)	200	x	x	x	x
8	Catharina letter (1753)	100	x	x	x	-
9	Cornelius letter (1753)	300	x	x	-	x
10	Nathanael letter (1760)	100	-	x	-	x
11	Mari Magdalene (1762)	100	-	x	-	x

a = There is once occurrence of the form <ka> in this source, but this must be a variant of the possibility modal *kan*.

b = See Appendix C, this letter is not included in the NEHOL Database.

A mere glance at the following two sentences written by Domingo Gesoe proves that Dutch Creole already functioned as a full-blown language that was very different from Dutch (in accordance with the scenario in §2.1.3), since the first one (1) was written in 1738 in formal Dutch and the second (2) only three years later in 1741 by the same author in Dutch Creole:

- (1) *de wjl dese occasie Presenteert, soo kan ick niet*
 while this occasion presents so can I not
nalaten om an u te Schreijven.
 refrain.INF COMPL PREP 2.OBJ COMPL write.INF
 ‘Now that this occasion presents [itself], so I cannot forbear to write you.’
 (Stein 1985: 440; written by Domingo Gesoe in 1738)

³⁰ The missionary scribe, Löhans, was most likely only slightly familiar with Dutch Creole at all, whether written or spoken.

- (2) *mi no kan danck de heijland gnog voor Sie*
 1SG NEG can thank DET saviour enough for 3S.POSS
genade die Em a doe na mi.
 mercy REL 3SG PST du LOC 1SG
 ‘I cannot thank the Saviour enough for his mercy that he has given
 me [lit. done to me].’
 (Stein 1985: 446; written by Domingo Gesoe in 1741)

Remarkable structural differences between these two sentences include word order (Dutch infinitive OV and PP before V word order in (1) versus Dutch Creole VO word order in (2)) and the use of the negator (Dutch post finite verbal *niet* in 1 versus Dutch Creole pre-verbal negator *no* in 2). Other features that convincingly show that Domingo Gesoe’s 1741 letter has been written in Dutch Creole rather than Dutch are the complete lack of verb inflection and conjugation, the use of preverbal past marker *a*, the use of preverbal negator *no*, the use of Dutch Creole pronouns that have only one form for subject and object (1SG *mi*, 3SG *em*, 3PL *sender*), the use of the Dutch Creole non-specific locative preposition *na*, the use of *voor/voe* as a purposive complementizer introducing finite clauses, and the use of the 3PL pronoun *sender* to mark plural on nouns (see Appendix C for the whole letter). None of these features are Dutch: they are typically Dutch Creole.

All in all, the differences between Domingo Gesoe’s 1738 and 1741 letter are so overwhelming and the time span between the two letters is so short, that we cannot interpret this in any other way than that Dutch Creole had already stabilized by the 1730s (and before). The same holds for the absence of the aspect markers *ka* and *le* in the letters before the 1750s: most probably, *ka* and *le* had been in use as aspect markers in Dutch Creole before 1750.

2.2.4. Missionary documents

In his “Instructions for Missionaries to the East”, the head and patron of the Moravian Brethren Count von Zinzendorf wrote: “Do not measure souls by the Herrnhut yardstick” (Schattschneider 1984: 66), urging his missionary followers to “impart the love of Christ with minimum cultural interference” and to “approach an indigenous culture and language with respect” (Gallagher 2008: 196). The respect of indigenous culture was rather limited, as proven by the missionaries constant attempts of banishing out any expression of African religion and culture (see e.g. Sensbach 2005: 88–89 and §2.2.6.6). But it is true that the Moravians respected (to a

considerable extent) the language of their target audience, the enslaved population of the Danish West Indies.³¹

No doubt merely for practical reasons, they started using Dutch Creole themselves quite soon after their establishment in the Danish West Indies. After his three weeks stay in St. Thomas in January–February of 1739, Count von Zinzendorf wrote the Afro-Caribbean congregation a letter *in Cariolischer Sprache* ('in creole language').³² The missionaries' enthusiasm for the use of Dutch Creole is also illustrated by the following fact: In the early 1740s, the only missionary who functioned as a scribe,³³ Valentin Löhans wrote considerably more letters in Dutch Creole than the two Afro-Caribbean scribes from that period, Peter and Domingo Gesoe. The latter two much more often wrote in Dutch, or in a mix between the two languages (Stein 1985: 446).

The missionaries' first written records of Dutch Creole (other than the letters written by Valentin Löhans; see Table 2.6) date from the 1750s, which is the period when the TMA markers start appearing in the letters written by the enslaved (Table 2.5). There are manuscripts of some songs and hymns from the 1750s, a 1765 hymn book, and a report, essay, and letter from the late 1760s and early 1770s. The substantial Bible translations by Böhner, Auerbach and other unknown authors, are undated. But there are indications that Böhner's New Testament and Gospel Harmony (Lieberkühn 1769) translations most probably date from the 1770s (see Table 2.6 and the footnotes therein). Unlike their Danish Lutheran counterparts (see below), the Moravians fail to print any document in the entire eighteenth century, probably due to their more limited financial means.

In 1766, Christian Georg Andreas Oldendorp (1721–1787) was assigned the task to write a history of the mission work in the Danish West Indies for which he visited the islands in 1767 and 1768 (Peucker 2010: vii). From there, he travelled to Bethlehem, Pennsylvania, the American head quarter of the Moravian Brethren, where he arrived November 26, 1768, and started writing down the first part of his history. In Bethlehem, where he stayed until March 1769, he consulted documents from the Moravian archive for his study which he finished by 1777 (Peucker 2010: vii-viii). But his manuscript had become too elaborate and long, so the Moravian Brethren assigned Johann Jacob Bossart with shortening the manuscript (Peucker 2010: viii). Bossart's severely reduced edition (about one-fourth

³¹ Audience design is a key issue in van Rossem (in prep.).

³² He must have written the letter in German, after which it was translated into Dutch Creole by a scribe on St. Thomas.

³³ At the time, not everybody could write. They could dictate their message to a scribe who wrote down the letter for them.

in length of the original) was printed in 1777 and remained the only available edition until in 2000 and 2002 Oldendorp's original manuscript was published in two parts and four volumes. In a 2010 commentary volume, Peter Stein publishes three dialogues between missionaries and married enslaved couples written by Oldendorp but not included in the 2000 and 2002 edition of his manuscript. These have been included in the NEHOL Database as OLDGESPR (see Table 2.6 below).

Table 2.6: Moravian missionary data available in NEHOL

Year	Code	Genre	Author	N ^o . words
1754	3.3.3	Christmas song	Isles ^a	600
1755	3.3.4	hymns	unknown	800
1765	HERRN65	hymn book	unknown	9,600
1767	3.3.1.7	church retrospective	unknown	1,300
ca. 1768	OLDGESPR	dialogues	Oldendorp	2,300
1772	3.3.6	religious essay	Schmidt (Loretz) ^b	900
1774	AUER74	letter	Auerbach	200
[<1780] ^c	3.2.1	Gospel Harmony (Lieberkühn 1769) translation	Böhner	107,000
[<1780]	3.2.2	GH translation	Böhner	74,600
1780	3.2.6	Idea Fidei Fratrum (Spangenberg 1779) translation	Böhner	3,200
[<1780?]	3.2.4	NT Epistles translation + Revelation of John	Böhner	9,700
[<1785]	3.2.5	OT translation	Böhner	129,000
1784	AUER84	2 catechisms	Auerbach	500
n.d.	3.3.1.3	OT Genesis translation	unknown	4,600
[< 1792]	3.2.3.1	GH translation	[Auerbach] ^d	26,300
n.d.	3.2.3.2	GH translation	unknown	20,800
1796	3.3.1.5A	Creole sermon	unknown	4,900
1797	3.3.1.5B	Creole sermon	unknown	2,400
1797	3.3.1.5C	Creole sermon	Reichels	2,500
1802	Grammatik conversation	Grammar with dialogues	unknown	-

- a* = Born in Yorkshire, England 1723, Samuel Isles was sent to St. Thomas around 1748 as a lay preacher. From 1756 until his death in 1764, he worked on Antigua (Peucker & Graf 2006).
- b* = The essay has been written by Moravian Brother Johann Loretz. Stein assumes the date of editing to be 1783/1784, the time when Loretz visited St. Thomas to inspect the Moravian mission on St. Thomas (1986b). In the text itself, the translation (into Creole) is attributed to Melchior Schmidt and dated “ca. 1772”. This suggests that the text had been written by Loretz and then translated more than a decade before Loretz’s visit to St. Thomas.
- c* = In a letter dated 21 January 1780, Johann Böhner (1710–1785) writes that he had started translating the Holy Scripture in the language of the slaves more than twenty years ago and that by then he had already translated the New Testament “more than once”, referring to Lieberkühn’s 1769 Gospel Harmony, the Acts and the Epistles of the Apostles, as well as a good portion of the Old Testament, referring among other things to the books of Moses, Joshua, Judges, Job, and Ruth (van Rossem & van der Voort nd: 4–5). This means that his Gospel Harmony translations (3.2.1 and 3.2.2) as well as his NT translation (3.2.4) are very likely to have been written before 1780 (especially when taking into account that Böhner died in 1785). His Old Testament translation (3.2.5) however bears the title *Ein abermaliger versuch Etwas aus den Büchern der heiligen Schrift Alten Testaments in Die Creol (oder Neger) Sprache zu übersetzen* ‘A second attempt to translate something from the books of the Holy Scripture Old Testament into the Creole language’, and this reference to “a second attempt” may mean that he wrote this particular version between 1780 and his death in 1785.
- d* = On the basis of the similarity between his handwriting and that used in ms 3.2.3.1, Cefas van Rossem (p.c.) suggests that Johann Christoph Auerbach may be the author of the manuscript (see <http://diecreoltaal.wordpress.com/> for a picture comparison of mss 3.2.3.1 and 3.2.3.2 and a letter by Auerbach). Auerbach served on the Danish West Indies from 1766 until his death in 1792 (Het Utrechts Archief), so that ms 3.2.3.1 cannot have been written any later than 1792.

Concerning the Danish Lutheran mission, Johannes Christian Kingo was among the first missionaries from 1757 (Hall 1992: 193) and had settled on St. Thomas (Larsen 1950: 112). Before publication of his primer in 1770 (see Table 2.7), he had already translated into Dutch Creole Luther’s Small Catechism in 1764 (published in 1770) and the Gospel of Matthew (unpublished) (Larsen 1950: 112). In 1769, J.M. Magens (see §2.2.5) was called in to revise Kingo’s translation of Luther’s Small Catechism (Larsen 1950: 113). Larsen (1950: 113) mentions that at that time Magens had already begun working on “his remarkable work of translations into Creole,” which must refer to his planter dialogues published in 1770 (see §2.2.5). Magens also assisted missionary Wold in his 1770 primer and hymnal (see Table 2.7 for both). Erich Röring Wold was the tutor of

Magens's children and lived in his home on St. John (Larsen 1950: 113–115).

Table 2.7: Danish Lutheran missionary data in NEHOL

Year	Code	Source	Author	N ^o . words
1770	Kingo.ABB	primer	Kingo	1,700
1770	Wold ABB	primer	Wold	1,400
1770	PSBUK70	hymn book	Wold	7,100
1770	Vestindisk Glossarium	trilingual wordlist (Danish-Dutch Creole-German)	possibly Kingo	-
1781	PONTOPPI Evangelium	NT translation	J.M. Magens	900
1798	LUND98	religious educational writing	Lund	19,400
1800	Barby.ABB	primer	unknown	500
1823	PRAET23	hymn book	unknown	18,600

Wold and Magens also worked together on a first translation of the New Testament (Larsen 1950: 114). In 1772, Wold died. Between 1777 and 1779, Magens finished a second translation of the New Testament that was published in 1781 (see Table 2.7). At first, the NT translation was rejected “because it was excessively Dutch”³⁴, according to a note on the first 1779 draft, but the published version of 1781 is entirely identical to this draft (Hesseling 1905: 38).

Thorkild Lund, who was parson on St. Thomas between 1792 and 1794 (Nissen 1837: 227), published a Dutch Creole reader in 1798, the year after he had left St. Thomas for Copenhagen. The reader was used for many years in the various Lutheran government and mission schools on the three islands (Larsen 1950: 119).

In a 1823 letter, Lund expresses his gratitude for the inclusion of 30 of his hymns in the anonymous 1823 hymn book (see Table 2.7), which he wrote in 1797 (van Rossem 2015). The 1823 hymnbook, which contains 111 hymns, is most likely an elaboration of a 1799 hymn book published by Brandt, then pastor in Christianstedt (not in the NEHOL Database), which is itself probably an elaboration of Wold's 1770 hymn book which contained only 35 hymns.

³⁴ The original note in Danish reads: “Det første Arck af et Creolsk Nye Testament trykt 1779, hvoraf intet videre udkom, siden Ofversetsel var formeget Hollandsk.” ‘The first page of a Creole New Testament printed in 1779, of which nothing more was published, because the translation was excessively Dutch’ (Hesseling 1905: 38).

Since the missionaries created their own sources, the validity of the MDC data is not an issue (other than that they may not have spoken Dutch Creole exactly as they wrote it), but their validity as sources of EDC or ADC is obviously an entirely different question. The MDC data only indirectly inform us about EDC or ADC and their validity in this respect depends strongly on the type of feature under investigation.

2.2.5. Planter dialogues

In 1770, the already mentioned Joachim Melchior Magens published a Dutch Creole grammar which contained a section with some proverbs and a number of dialogues. Magens was born on St. Thomas in 1715 “into a relatively wealthy family” as the son of the Danish Jacob Magens and the locally born daughter of a plantation owner, Anna Maria van Beverhout (Dyhr 2001, cited in Magens 2009: 15). He studied law in Copenhagen from the early 1730s until 1737, and lived in New York from around 1749 until 1760 (Dyhr 2001, cited in Magens 2009: 15). He held important government positions on St. Thomas and St. John (Larsen 1950: 113) and had close ties with the Danish Lutheran church and mission. He had worked on other translations into Dutch Creole (see §2.2.4). Given his background, we can assume that Magens was trilingual in EDC, Danish as his paternal language, and Dutch as his maternal language.

Table 2.8: Colonists’ (EDC) data in NEHOL

Year	Code	Source	Author	Nº. words
1770	1770 MAGENS	proverbs + dialogues	J.M. Magens	4,597

The integral work was written for missionaries of the Danish mission studying Dutch Creole (Hesseling 1905: 36). The dialogues reflect daily life situations of a planter and his family and feature various different combinations of participants (e.g., planter to slave, slave to slave, colonist to colonist). The dialogues “were not intended as literal conversations”, but “keyed specifically as pedagogical idealizations to be framed as *practice*” (Williams 1984: 58). Further, Williams (1984: 56–57) writes that “Magens was concerned with his presentation of the Dutch Creole language in use in the Virgin Islands. He therefore selected situations in which the social ... status of the individuals would differ.”

The validity (see Schneider 2013: 71–73) of any fictional written text – which Magens’s dialogues essentially are, not being transcriptions of actual conversations – is of course lower than transcriptions of real speech. However, given Magens’s goal to deliver dialogues that would prepare

future missionaries for Dutch Creole as spoken in the Danish West Indies, he must have taken care that the language used was sufficiently close to spoken EDC (and ADC as spoken by those in closer contact with EDC speakers as some of the participants in the dialogues are). This point is explicitly addressed by Magens in the following note that precedes the daily life dialogues, but follows another dialogue between a heathen and a catechumen discussing the Bible and its content:

Since one cannot properly learn from the previous dialogue the actual Creole ways of speaking that are used in daily interaction, because the theological ways of speaking and the words that can be used in it are for the most part taken from Dutch, therefore I have written the following dialogues, and strived to include all the ways of speaking that I could think of.³⁵
(Magens 1770: 51)

Since this is the only available source of what we assume to be EDC, we cannot assess the extent to which the dialogues are representative of EDC as spoken in the Danish West Indies at the time, but the fact that they contain features present in twentieth century ADC which are not attested in missionary documents speaks in favour of the dialogues' validity.

The grammar part has been published in English translation by Hein van der Voort and Peter Bakker as Magens (2009). The proverbs and dialogues were published with a Dutch translation in Hesseling (1905).

2.2.6. Documents of Afro-Caribbean Dutch Creole

The sources discussed here are those that reflect Dutch Creole as spoken by the Afro-Caribbean population (ADC). The available ADC sources are listed in Table 2.9 (next page). They are practically all of considerably later date than the colonists' and missionary data. In the following subsections I discuss the background of the data collection and the speakers that contributed to their emergence.

2.2.6.1. *Van Name's short language sketch*

Van Name has compared Oldendorp's data – undoubtedly Bossart's 1777 edition – with contemporary data. His informant was “a young man,

³⁵ “Da man ikke ret vel af forestaaende Samtale kand lære de egentlige Creolske Talemaader, som bruges i den daglige Omgang, af Aarsage, at de Theologiske Talemaader og de dertil brugelige Ord ere mestendeel efter det Hollandske, saa har jeg sammenskrevet følgende Samtaler, og stræbet efter at indfore udi samme alle de Talemaader, som kunde falde mig ind udi Tankerne.” I would like to express my gratitude to Peter Bakker for his help with the translation.

Frederico Antonio Camps”, born in Havana, Cuba but moved to St. Thomas at the age of 6. He speaks “besides the French, also the Dutch and Spanish Creole, all three with great readiness” (1869–1870: 127). His true mother tongue, however, is (Cuban) Spanish (1869–1870: 149). According to Van Name, “a considerable portion of the city population in St. Thomas” spoke French Creole (1869–1870: 126), as a result of nineteenth century migration from St. Barthélemy (Highfield 1979). The Spanish Creole referred to is Papiamentu from Curaçao, which Camps learnt from his “master-workman with whom he served a six years’ apprenticeship” and “his fellow workmen [who] were natives of Curaçao and made constant use of the language” (1869–1870: 149).

Van Name does not provide any new data in the sense of narratives, dialogues or isolated sentences, but he gives a very brief description of grammatical features including remarks on the tense and aspect system.

Table 2.9: Sources of African Dutch Creole

Year	Code	Source description	Author	Nº. words
1788	-	rebel slave song	Schmidt	
1871	-	language sample	Van Name	-
1881	PONTOPPI	proverbs, dialogues	Pontoppidan	600
1883	AMAGENS	letter written to Hugo Schuchardt to demonstrate Dutch Creole	A. Magens	1,800
1904	Greider	Four sentences as a creole sample	Greider	25
1926	dJdJ texts + wordlist	103 narratives, mostly folktales, plus a wordlist collected in 1922/1923	de Josselin de Jong	see §2.2.6.4
1936	Nelson	words, sentences, and short narratives	Nelson	
1977	-	dissertation containing some newly recorded example sentences	Adams Graves	-
1980s	-	recordings of the last speaker made in 1980s	Sprauve	-
1990	-	dissertation containing written language samples of recordings of the last speaker made in 1980s	Sabino	-
2012	-	monograph with audio samples of recordings of the last speaker	Sabino	-

2.2.6.2. *Pontoppidan's proverbs and dialogues*

Erik Pontoppidan (born in 1847) was a general practitioner on St. Thomas from 1876–1881. In 1881, he published a brief discussion and sketch of some features of the language. He provides one page full of proverbs in the way he attested them *im Volksmunde* “in popular speech” (Pontoppidan 1881: 135), and concludes with a sample of Mogens’s translation of the New Testament printed in 1781, and a sample conversation *im gewöhnlichen Kreol* ‘in ordinary creole’ (1881: 135). He does not specify from where he got his information about the proverbs and the dialogue, but states in an edited reprint that it had required “not inconsiderable difficulty” to gather some knowledge of Dutch Creole (Pontoppidan 1887: 297, cited in German translation from Stein 2013: 109).³⁶

In this edited version of the article published in 1887, the dialogue and the fragment from the New Testament had been omitted and replaced by the Ten Commandments, presumably a copy from Wold (1770) (Stein 2013: 119). Moreover, in the 1887 version the proverb section has been reworked in such a way that correspondences with Mogens’s 1770 proverbs have increased. Nevertheless, Stein (2013: 119) states that there is a significant amount of differences between the two (including the spelling) that suggest that Pontoppidan did not copy these proverbs from Mogens.

2.2.6.3. *A. Mogens's letter and language sample*

In response to his inquiry concerning Dutch Creole, Hugo Schuchardt received a letter from A. Mogens dated February 23rd, 1883 in Dutch Creole to illustrate the language as it was spoken at that time. Schuchardt published the letter in 1914 provided with commentary. The introduction of the letter explains how the letter had come about, although we learn only little about the identity of the interpreter, who he describes as “a girl from an old creole family”:

Mi liewe Mæster Dokter! Mi ha dink di beste Manii fo mi fo mak ju ferstann di rekte Manii, di Creol tael pratt, be fo skriff ju na Creol, as fær as mi kan. Mi no weet muschi fan di, bot wa mi weet mi be tofreenen fo skriff. Mi no weet fo spell di wort sender frei, mi be spell di as mi fang di, wanær mi hoor di follek sender. Mi ka fragg en mænschi fan en how creol familli fo hellep mi, mi ka fragg am na Ingis wa mi mankee fo sæ, an am sæ mi hosó fo sæ na Creol. Na di Manii mi dink mi sa gii ju en frei ferstann fan di tael.

³⁶ “Det var derfor allerede for nogle Aar siden, da jeg under et Ophold paa Øerne bestræbte mig for at faa lidt Kendskab til dette gamle, pudsige og egentlig ret interessante Sprog, forbunden med **ikke ringe Vanskelighed** [...]” (Pontoppidan 1887: 297).

‘My dear Sir doctor! I thought the best way for me to make you understand correctly how the creole language is spoken, is to write you in creole, in as far as I can. I do not know it very well [lit., much of it], but I am pleased to write what I know. I do not know how to spell the words correctly, I am spelling them the way I catch them, when I hear the people. I asked a girl from an old creole family to help me, I asked her in English what I wanted to say, and she told me how to say it in creole. This way I think I will give you a good understanding of the language.’
(Schuchardt 1914: 127)

Thus, just like virtually all sources – save for the early letters (see §2.2.3) – this letter was not written by a native speaker of Dutch Creole. So we cannot determine with absolute certainty how faithful Magens’s letter is to the girl’s speech. Another reservation is the fact that in the mere act of translating the girl may have been primed by the structure of the original English text.

However, despite these drawbacks, the similarity to the language in de Josselin de Jong (1926) confirms that the language of A. Magens’s letter is much closer to ADC than earlier sources were, with the probable exception of the proverbs published by J.M. Magens (an ancestor of A. Magens) and Pontoppidan (1881). Thus, A. Magens’s letter can definitely be used for the purpose of investigating those TMA markers and categories that also occur in the de Josselin de Jong (1926) data (see §2.1.6.4.4).

2.2.6.4. De Josselin de Jong’s narratives and his informants

2.2.6.4.1. The validity of de Josselin de Jong’s narratives

The most important source of ADC is de Josselin de Jong’s 1926 data collection. He collected his data by conducting interviews during an archaeological expedition in the by then US Virgin Islands from late 1922 until March of 1923. The language of de Josselin de Jong 1926 thus stems directly from the Afro-Caribbean population.

It is clear from the data that de Josselin de Jong must have gone to great pains to record the narratives as faithful as possible. He developed an orthographic system specifically for the written rendition of the Dutch Creole narratives, with which he documents enormous variation in the pronunciation of words. Interviews with the last group of speakers in the 1970s and 1980s (Gilbert Sprauve; Graves 1977; Sabino 1990) confirm the representativeness of de Josselin de Jong (1926) data.

Schneider (2013: 60–61) distinguishes five categories of text types that differ in their proximity to speech. De Josselin de Jong’s diary, found and transcribed by Cefas van Rossem (p.c., in preparation), teaches us that his transcriptions are primarily *recorded*, i.e., “written down on location”

(Schneider 2013: 60), the category closest to speech, and in part *recalled*, i.e., “written down some time after the utterance itself, presumably from notes and/or memory” (Schneider 2013: 61), the category one step further removed in proximity to speech. Hildyard & Olson have investigated what people memorize in “free recall protocols” and conclude that the listener focuses on the meaning of what is said rather than the actual words, syntax and intonation (1982: 20, cited from Schneider 2013: 63). However, this result cannot be generalized just like that. Taking into account that de Josselin de Jong was not familiar with the language, that the language is not mutually intelligible with Dutch, and the level of detail transcribed, it is virtually impossible that de Josselin de Jong would have been able to recall these narratives from memory. The most pertinent distortion is that many of the texts are likely to have undergone some editing to smooth out interruptions, hesitations, side remarks, etc., and the fact that every transcript – also those by modern sociolinguists making use of tape recordings (Schneider 2013: 62) – involves some kind of subjective interpretation.

2.2.6.4.2. *The content of de Josselin de Jong’s narratives*

Despite the fact that the publication of his collection of folk narratives proved revolutionary for the study of Dutch Creole, one cannot escape the impression that de Josselin de Jong himself was overall rather disappointed with his catch of narratives.

De Josselin de Jong started his career in the 1910s with linguistic publications with an “ethno-psychological approach”. Upon becoming a staff member of the National Museum of Ethnology in Leyden he soon turned to cultural anthropological investigation. In 1922, the year he started his expedition to the US Virgin Islands, he was appointed Professor of Cultural Anthropology at Leyden University (de Josselin de Jong 1964: 224). This is reflected in the content of his data, which are first and foremost a collection of folk narratives, his primary interest. By far most of these folk narratives can be categorized as either fairy tales by the brothers Grimm or Anansi tales.³⁷ Additionally, there are also some tales from

³⁷ Anansi is a spider hero from the traditional Asante religion from Ghana (e.g. Marshall 2007). In Asante, a variety of Akan, the word *ananse* means ‘spider’. There is a myth that relates how all the stories became his. In Akan, the general word for story is *anansesen*, which literally translates as Anansi story. Anansi stories have spread all over the Caribbean and parts of the US and subsequently the stories have adapted to their new environment (e.g. Marshall 2006; 2007). In the Anansi tales collected in de Josseling de Jong (1926) Anansi’s main antagonist is his stepson/stepfather/brother-in-law Tekoma (whose name can also be traced back to Ghana: in the original stories, Ntikuma is Ananse’s oldest son). In Anansi stories

Greek mythology. His informants made a distinction between “old-time stories” and “stories from books” or “school stories”, but this distinction appears not to correlate to a distinction between the European tales and the Anansi tales (de Josselin de Jong 1926: 5).

The narrative collection is built up in a systematic fashion. Presented first are the true narratives (narratives I–LXXXII). Among these are a handful of narratives of personal experience. Next is a miscellaneous section, which starts with six children’s rhymes (LXXXIII–LXXXVIII), twelve story-house songs, which are particular to traditional rituals and (festive) gatherings and are part of ritual dances (LXXXIX–C; see §2.2.6.6). This is followed by a list of herbs and their medicinal purposes and applications (CI) and Robert’s narrative, which starts off with werewolves and what they do to children, then relates what God will do with the souls of the departed at the Last Judgment, and ends with a personal experience (CII). Finally, the collection is concluded with a list of cardinal and ordinal numerals (CIII).

Table 2.10: de Josselin de Jong’s (1926) informants

Speaker	Narratives contributed	N words	Born	From
W.A. Joshua	I–XIII, CI ^a (pp. 11–25)	10,387	1858	St. Thomas
Prince	XIV–XVI (p. 25)	416	1857 or 1860	St. Thomas
Emil Francis	XVII (pp. 25–26)	113	1854	St. Thomas
J.A. Testamark	XVIII–XXII, CI ^a (pp. 26–28)	1,542	1859	St. John
J.A. Testamark/X ^b	XXIII–XXVII (pp. 28–32)	2,230	?	St. John
R. George	XXVIII–XXIX (p. 32)	140	1845	St. John
A.C. Testamark	XXX–XXXI (p. 32)	180	1841	St. John
L. Joseph	XXXII–XXXVII, LXXXIII–LXXXVIII ^c (pp. 32–34) (pp. 62–63)	1,341	1858	St. John
A. Christian	XXXVIII–XXXIV (pp. 34–36)	1,551	1850	St. John
W.H. Roberts	XXXV–LXXXII, (pp. 36–62) LXXXVIII–C, CI ^a , CII–CIII (63–68)	18,495	1863	St. John

known elsewhere in the Caribbean, this role is often reserved for a character called Tiger, which does not feature at all in de Josseling de Jong (1926). Dutch Creole Tekoma probably represents at least two different characters from older versions of the tales. In the narratives in de Josseling de Jong (1926), not infrequently Tekoma is the protagonist and Anansi does not feature at all.

- a* = Text CI is a compilation of contributions by Joshua, J.A. Testamark, and Roberts (de Jossling de Jong 1926: 8). What individual parts have been contributed by whom is not indicated.
- b* = De Josselin de Jong has caused some confusion by not having mentioned who contributed stories XXIII–XXVII. I think the most obvious solution is that these have been provided by J.A. Testamark, and that de Josselin de Jong by accident left out the V in the Roman numeral XXVII (resulting in XXII). Despite the impression Table 2.10 gives, these narratives have not been contributed by a tenth informant, since de Josselin de Jong (1924: 69) mentions to have worked with nine informants.

My assumption that these narratives have been contributed by J.A. Testamark is further based on the following facts: i) all true narratives, those up to and including LXXXII, are sorted per narrator, as Table 2.10 shows: first, all of Joshua's narratives are presented, then all those contributed by Prince, then those by Francis, etc. etc. This means that the expectation is that narratives XXIII–XXVII have been contributed either by J.A. Testamark, who contributed the preceding lot of narratives, or George who contributed the following two narratives. Compared to the anonymous narratives XXIII–XXVII, George's narratives are very short. By contrast, J.A. Testamark's narratives are comparable in length.

Furthermore, J.A. Testamark's last two narratives begin with *Mi loo see ju diso nu* 'I am going to tell you this one now' and *Nu mi loo see ju een fa di hou tit gut sini* 'Now I am going to tell you one of those from olden times'. Three of the anonymous narratives have a similar opening sentence: *Mi sa see ju nu* 'I will tell you now', *Nu mi sa gi ju eenandə* 'Now I will give you another one', and *Mi sa see ju een gut nu* 'I will tell you something now'. There are no other narratives by any other informant with such an introductory sentence.

An anonymous reviewer of my paper submitted to the Journal of Germanic Linguistics, included in this dissertation in adapted form as Chapter 3, was however not convinced by these arguments and suggested that it be treated as an hypothesis to be tested by comparing a range of features in the narratives provided by J.A. Testamark (XVIII–XXII) and the anonymous ones (XXIII–XXVII). This reviewer kindly provided the below features, which are mainly in support of the hypothesis: i) the two sets of narratives contain the same variants of the following lexical items (that occur with variable forms) in 74 out of 83 cases: *abiti* 'out(side)', *abini* 'inside', *aboo* 'on', *am* '3SG', *sini* '3PL', *wani* 'when', *fulək* 'people/person'; and (ii) the rate of initial s-deletion in consonant clusters is identical: 6/6 versus 5/6.

However, Sabino (1990: 96–155) finds that J.A. Testamark (referred to as speaker D) is more "conservative" (i.e., deletes, inserts, and simplifies more) than informant x (speaker E) on all of the following features: insertion of word final vowels, deletion of single consonants, cluster simplification, epenthesis in word final clusters, and deletion in word final clusters. Though I am convinced that narratives XXIII–XXVII have been contributed by J.A. Testamark, I treat these narratives in Chapters 3–6 as if they were contributed by a separate

informant (indicated as J.A. Testamark/X), so that the reader can trace which data were contributed in which narratives.

c = De Josselin de Jong (1926: 7) has attributed narrative LXXXVIII (88) to both informants 7 and 9. This narrative is the *dri blin mushi* ‘three blind mice’ childrens’ rhyme also documented by Nelson in 1936. In communication to Hans den Besten in 1993 (see van Rossem 2013a), Nelson writes the following about this rhyme: “This is only one of several versions of this old nursery rime [sic] which I heard in the Virgin Islands in the spring of 1936, from both Blacks and Whites, most of whom were unaware that it was even in Creole but told me that they had learned it in childhood either from their parents or from nursemaids. To them it was just a nonsense jingle. Unfortunately, I did not take down any of these “buckra” versions with their varying mixtures of Creole and Island English. Mea Culpa.” This makes it likely that both L. Joseph and W.H. Roberts told this rhyme and de Josselin de Jong intentionally ascribed the rhyme to both informants.

2.2.6.4.3. *The orthographic system of de Josselin de Jong’s narratives*

In the digital version of de Josselin de Jong (1926) included in NEHOL, we have had to convert de Josselin de Jong’s original orthography for technical reasons. Whenever I cite examples from de Josselin de Jong (1926) in this thesis, I give them in the converted orthography used in NEHOL in order to facilitate looking up the examples in de Josselin de Jong (1926) via NEHOL to see them in their narrative context. The conversion scheme is given in Table 2.11 on the next page (see Stolz 1986; Sabino 1990; and §2.3.1 for more information on the pronunciation of Dutch Creole).

The accent symbol (ˈ) is used to indicate stress in both de Josselin de Jong (1926) and NEHOL (see §2.3.1 on stress in Dutch Creole). It may occur on all vowels, also on those that already carry a diacritic sign, with the exception of <ə> and <ö>.

As shown in Table 2.11, the converted orthography sometimes makes use of a combination of symbols (e.g., <aa>) to represent only one single sound following the example of Dutch orthography that also inspired the eighteenth century documents. In the original orthography, only a single symbol <ā> was used. The converted symbol <aa> may also occur in the original orthography to reflect two individual sounds. Whenever this is the case, the apostrophe symbol (') is added in the converted spelling inbetween the two symbols to indicate that they should be read as two individual symbols. For example, the word originally spelled as *naastu* ‘after’ (de Josselin de Jong 1926: 58), which must have been pronounced as /na'astu/ consisting of three syllables, has been converted to *na'astu*, to avoid confusion with the converted symbol <aa> that is originally spelled <ā> and thus represents only a single sound.

Table 2.11: The conversion scheme of the characters used in de Josselin de Jong (dJdJ 1926) for the NEHOL database and this dissertation

dJdJ 1926	NEHOL	pronunciation based on de Josselin de Jong (1926: 9–10)
a	a	variable sound, fluctuating between /a/ and /a/
ā	aa	/a/
á	áá	same as <ā>/<aa>, with stress
e	e	variable sound, fluctuating between /ɪ/ and /e/; sometimes tending to /ɛ/
ē	ee	/e/
é	éé	same as <ē>/<ee>, with stress
ê	ê	same sound as represented by <e>, but longer
i	i	variable sound, fluctuating between /ɪ/ and /i/
ī	ii	/i/
o	o	variable sound, fluctuating between /ɔ/ and /o/
ō	oo	/o/
ó	óó	same as <ō>/<oo>, with stress
u	u	/u/
y	y	/y/
ə	ə	/ə/
ö	ö	/ʏ/
ñ	ng	/ŋ/
š	sh	/ʃ/
ž	zh	/ʒ/
vowel + ⁿ	vowel + ^{n a}	nasalized vowel

a = In NEHOL the distinction between a superscript consonant and a regularly aligned symbol has been lost, but the distinction has been preserved in the examples given in this dissertation.

2.2.6.4.4. The background of de Josselin de Jong's informants

The studies in Chapters 3–6 address the issue of variation between de Josselin de Jong's informants, but any such individual differences can only even be attempted to be interpreted if we have at least some idea of who they were and when they spoke how or what language to whom:

One of the central questions to ask in the sociolinguistic analysis of multilingual societies is “[w]ho speaks what language to whom and when” (Fishman 1965: 428). All the relevant factors we need to answer this question are, again, social or sociolinguistic, irrespective of whether we are investigating modern multilingual speech communities or earlier ones,

though the difficulties are clearly much greater when we are studying earlier multilingual societies.
(Schendl 2012: 522)

Although de Josselin de Jong has provided some general information on the use of Dutch Creole in the US Virgin Islands at the time, there is only very limited background information of specific informants. There are a number of issues that de Josselin de Jong did not comment upon: were his informants still active speakers of Dutch Creole and involved in a Dutch Creole speaking network? And if so, were the various informants part of the same such network? In other words, did they speak Dutch Creole to each other or to other people on a regular basis?

It is also not clear whether the place indicated by de Josselin de Jong (1926: 7) is their birthplace, or their place of living (see Table 2.12). The 1917/1918 St. Thomas census records reveal that at the time Joshua and Prince both lived near the Moravians Ni(e)sky Estate, indeed, Joshua at the Contant Estate just north of the Nisky Estate, and Prince at Mosquito Bay, which is nowadays Lindbergh Bay, just southwest of it (USFC 1920c).

Perhaps Nisky was only intended as a rough indication of where on St. Thomas they lived, but it may very well be that they were indeed born on the Moravians' estate, located west of Charlotte Amalie (and just east of where is now the Cyril E. King Airport). Francis was indeed living in Smith's Bay, East End, at the time (USFC 1920b).

De Josselin de Jong did not specify more closely where his St. John informants were from or lived, but according to the census records they all lived in Coral Bay (USFC 1920a), where the Moravians had their Emmaus estate and church.

Table 2.12: de Josselin de Jong's (1926) informants

Speaker	N words	Born	From	Island
W.A. Joshua	10,387	1858	Nisky	St. Thomas
Prince	416	1857 or 1860	Nisky	St. Thomas
Emil Francis	113	1854	Smith's Bay, East End	St. Thomas
J.A. Testamark	1,542 ^a	1859	Coral Bay	St. John
R. George	140	1845	Coral Bay	St. John
A.C. Testamark	180	1841	Coral Bay	St. John
L. Joseph	1,341	1858	Coral Bay	St. John
A. Christian	1,551	1850	Coral Bay	St. John
W.H. Roberts	18,495	1863	Coral Bay	St. John

^a = Or 3,772, if we count J.A. Testamark and X as one (see §2.2.6.4.2).

The use of Dutch Creole appears to have been preserved best within the Moravian congregations. The only informant of St. John of whom we have

direct evidence that he belonged to the Moravian Church is Albert Christian, according to the 1880 St. Croix census (VISHA 1880). For the three St. Thomas informants, there is evidence of a direct connection to the Moravians for all of them. The 1901 St. Croix census informs us that Joshua belonged to the Moravian Church (VISHA 1901). Emil Francis relates in his single short narrative contributed that he was baptized by a Moravian parson:

- (3) *Də dómnee wa a doop mi si naam a Mr. Wit, domni fa Hernhut.*
 ‘The parson who baptised me was called Mr. Wit, parson of (New) Herrnhut.’
 (E. Francis; de Josselin de Jong 1926: 25)

The name Herrnhut probably does not refer to the fact that the parson belonged to the Moravian Church, but rather to the New Herrnhut Moravian Mission Estate, just south west of Smith’s Bay. He also went to a Moravian school (see e.g. Degn 2000: 492–495 for the Moravians’ role in the nineteenth century Danish West Indies education), as follows from his following remark:

- (4) *Mi a lo lo a skool a di jaa 1871. Di skoolhus a kaa fal. So ons a ha fo hou skool a di kérék. [...] Astə di gale di seləf jaa di a ha kálara. Ons na kan lo we it fa Kwati. Də dómnee na listáá ons lo eenteen pat abiti it fa di plantai.*
 ‘I went to school in the year 1871. The school building had collapsed, so we had to follow classes in the church. ... After the gale that same year there was cholera. We could not/ were not allowed to leave *Kwati*. The parson did not let us go anywhere outside of the estate.’
 (E. Francis; de Josselin de Jong 1926: 25–26)

De Josselin de Jong’s informant Prince is one of two men living at Mosquito Bay, current day Lindbergh Bay. They were direct neighbours and one of the younger man’s (born ca. 1860) daughters was a teacher at the Nisky school (USFC 1920c). But there is more that suggests a direct link between Prince and the Moravians. In one of his narratives – Prince only provides narratives of personal experience – he tells us:

- (5) *Mi popáá wees een meskene nabono də plantái.*
 ‘My father was a manager on the plantation.’
 (Prince; de Josselin de Jong 1926: 25)

In another narrative (XVI), Prince relates how his father caught a worker on the plantation stealing a turkey and reported the thief at the plantation owner. In this narrative, the plantation owner is addressed as *baas* (Prince; de Josselin de Jong 1926: 25), which is the term used to address the Moravian missionaries (Hesseling 1905: 274; can be attested in e.g. Stein 2010). This supports the assumption – also put forward by Sabino (1996: 56;60fn32), although in part inspired by a mistaken interpretation – that Prince’s father was a manager on the plantation of the Moravians’ Nisky Estate.

According to the census records, Roberts lived and engaged in seasonal work on the Bordeaux Estate just like John A. Testamark (USFC 1920a). Albert Christian and Robert George both lived in the north eastern part of Coral Bay, not too far from Emmaus church (USFC 1920a). Anna Catherina Testamark lived in the south of Coral Bay, near Ludwig Joseph (USFC 1920a).

2.2.6.5. *Nelson’s informants*

In 1936, Nelson visited the US Virgin Islands and found eight speakers of Dutch Creole willing to provide him with some data, although all of them had not spoken the language for many years (van Rossem 2013a: 18).

Table 2.13: Nelson’s informants (data taken from Nelson 1936 and USFC 1920b; 1930a; 1930b; 1930c; 1930d; 1930e)

Speaker	N words	Born ca.	From	Lives 1930s	Mother	Father
Henrietta Francis	300	1872	St. Croix		St. Cr	St. Cr
Henrietta Anton	19	1875	St. Thomas	Fredericksted, St. Croix	St. J	St. Th
Victoria Musinton	48	1863	St. Croix		St. Cr	St. Cr
Rebecca Francis	200	1874	St. Thomas		St. Th	St. Th
Jeremiah Hatchett	-	1844	Tortola (immigrated to US VI in 1854)	Smith’s Bay, East End, St. Thomas	St. Th	Tortola
Mary Francis	-	1854	St. Thomas		St. Th	English Canada
Margaret Tadmán	24	?	St. Thomas	East End, St. Thomas	?	?
Isabela Sylvester	100	1853	St. John (& Tortola)	St. Thomas	St. J	St. J

Census data reveal that there are a number of connections to de Josselin de Jong's informants. One of Nelson's informants was Mary Francis from Smith's Bay, East End, St. Thomas, who must be the wife of de Josselin de Jong's informant Emil Francis. Nelson makes no distinction between hers and Jeremiah Hatchet's contribution, who also lived in Smith's Bay. The two of them contributed only words, no sentences. Since according to Nelson, like all his other informants Mary had not spoken Dutch Creole recently, we cannot say with certainty whether it was still really part of her linguistic repertoire, whether it had been until some years back, or whether she never had more than just passive knowledge having perhaps learnt some of it from people around her, such as her husband. Jeremiah Hatchet was born on Tortola, just like his father, around 1844, but at the age of about 10 in 1854, he immigrated to St. Thomas where his mother had been born (USFC 1930a). It is thus possible that Jeremiah had learnt to speak Dutch Creole from his mother, but he may also have acquired not more than some passive knowledge of the language.

There is one other of Nelson's informants connected to Emil and Mary Francis: Rebecca Francis. I could not establish whether there is a family connection, but according to the 1917 census record Rebecca, her husband, and their granddaughter were neighbours of Emil and Mary Francis (USFC 1920b). At the time when Nelson interviewed her – and as Table 2.13 shows, she is one of the informants with a slightly more substantial contribution – her husband had died and she and her granddaughter had moved to another neighbourhood of St. Thomas (USFC 1930c). Margaret Tadman also lived in East End, St. Thomas when Nelson interviewed her in 1936, but I could not find any census record of hers. Isabella Sylvester was born on St. John but also spent part of her childhood on the neighbouring island of Tortola (Nelson 1936: 19). In the 1930s, she was living as a house servant in Charlotte Amalie (USFC 1930b).

Despite the same last name, Henrietta Francis does not appear to be (directly) related to Emil and Francis, nor Rebecca, since Henrietta and both her parents had been born on St. Croix (USFC 1930d). Although she like all the others apparently no longer used Dutch Creole by the 1920s and 1930s, it is remarkable that as late as the 1870s, when she was born, Dutch Creole was still transmitted to children in St. Croix, despite Pontoppidan's 1881 report that Dutch Creole had virtually died out by then on that island, as discussed in §2.1.6. Nevertheless, Henrietta Francis and Victoria Musinton (USFC 1930e; Table 2.13), born in 1863 from two Crucian parents must evidently have been the exception rather than the rule. A third supposedly Crucian informant born in the 1870s, Henrietta Anton was actually born on St. Thomas and her mother had been born on St. John

(USFC 1930b), where Dutch Creole was less endangered than on the other islands.

2.2.6.6. Occasions for use of Virgin Islands Dutch Creole in the twentieth century

The content of the narratives documented in de Josselin de Jong (1926) clearly shows how the Dutch Creole language and the particular context of use that includes traditional dances, songs, and storytelling was much better preserved on St. John than on St. Thomas. By the 1920s, it appears that the story-house songs and dances were only still known and performed in St. John. They were performed at ceremonial birth celebrations and at nightly gatherings in the homes of deceased the night after their death (de Josselin de Jong 1926: 6). The house where the people gathered is called a “story-house”, hence the name story-house songs and dances (de Josselin de Jong 1926: 7). In between the songs and dances, stories were told that were collectively referred to as “ninth night stories”³⁸ (de Josselin de Jong 1926: 7). Since the ceremonies were also attended by children, it was here that they had the opportunity to hear the old stories told in their ancestral language (de Josselin de Jong 1926: 6). The last “story-dance” on St. John took place after a death in October 1922, which is a bit less than half a year before de Josselin de Jong visited St. John (de Josselin de Jong 1926: 7). This means that the birth ceremony dance that de Josselin de Jong attended, described in narrative LXXXIX (de Josselin de Jong 1926: 6), must have been performed solely as an illustration of a story-dance. Thus, we can also gather that the other story-house songs (narratives LXL–C) were narrated to de Josselin de Jong by Roberts without the context of the ceremonial performance. The children’s games (LXXXIII–LXXXVIII), narrated by Joseph, were not customarily part of these ceremonies, according to a decided Roberts (de Josselin de Jong 1926: 6).

By the 1920s, de Josselin de Jong reports, only the older generation that delivered his informants still cared for this tradition, the young people laughed about it and did not want to talk to him about it. Nevertheless, it was still customary to visit one another at full moon, often resulting in a loud nocturnal party in which also the more mature adolescents joined, an occasion that also involved dances, songs, and possibly also stories (de Josselin de Jong 1926: 7). One might deduce from the above report that perhaps these young people had some passive knowledge of Dutch Creole, but de Josselin de Jong explicitly mentions: “[I] have been in sufficient

³⁸ The story-house birth ceremony took place on the eighth or ninth night after the birth (de Josselin de Jong 1926: 6), which is likely the origin of the name of the ninth night stories.

contact with the population to dare to claim that the younger generations indeed know little more of the language than a few words and expressions used in jest” (de Josselin de Jong 1924: 69–70, translation mine).³⁹

It appears that these occasions facilitated the transmission of knowledge of traditional stories, such as the originally Ghanaian Anansi-Tekoma/Ntikuma tales. Not only did each individual informant of St. John relate an Anansi/Tekoma tale – disregarding the fact that there was considerable individual variation with respect to the level of detail and the number of tales – these tales constituted on average about half of the narratives contributed. By contrast, Joshua was the only St. Thomas informant who knew any tales at all and all his tales – which were long and remarkably detailed⁴⁰ – were European ones such as Greek mythological tales and Brothers Grimm’s fairytales. This may have been the result of the missionaries contempt of “heathen” creole tales: Nelson reports that one of his informants had told him “that she had known a lot of songs in Creole in her unregenerate youth but refused to sing any of them for [him] because she was “now a good Christian woman”” (van Rossem 2013a: 19).

2.3. Studies of Virgin Islands Dutch Creole

Since the nineteenth century, Dutch Creole has inspired a considerable number of linguistic and socio-historic studies. The earliest, eighteenth century linguistic descriptions have been made by a Danish Lutheran layman and Moravian clerics (see Table 2.14). In the course of the nineteenth century, studies of Dutch Creole start appearing in academic publications. A number of them have been published with the aim of reporting new data and observations (see Table 2.15).

Table 2.14: Early language descriptions in support of the Danish West Indies protestant missions

Oldendorp	ms. [ca. 1768]	language sketch
Magens	1770	language sketch, proverbs, dialogues
Anonymous	nd.b [c. 1800]	language sketch

³⁹ “[I]k heb genoeg aanraking met de bevolking gehad om te durven beweren, dat de jongere generaties inderdaad weinig meer van de taal kennen dan een aantal schertsenderwijs gebruikte woorden en uitdrukkingen.”

⁴⁰ Joshua’s average tale length was 799 words, almost double of Roberts’s at 468 of actual narratives (i.e. excluding the short story-house songs). The overall average tale length was 353 words.

Table 2.15: Studies presenting (old and) new data and observations

van den Bergh	1840	introduction to Dutch Creole, reprint of prayer
Pontoppidan	1881; 1887	proverbs, sample conversation
Schuchardt	1914	A. Magens's letter from 1883
de Josselin de Jong	1924; 1926	narratives
Sprauve	1985	tape-recorded narrative

Other studies have been ordered and presented thematically in the tables below according to their primary focus:⁴¹ comparative studies with other contact languages (see Table 2.16), more general discussions of the language history of Dutch Creole (see Table 2.17), studies that focus on the demography of the Danish West Indies (see Table 2.18) or the origin of the Dutch Creole lexicon or specific features (see Table 2.19).

Table 2.16: Creole comparative studies

		Other contact languages discussed:
Van Name	1871	French-lexifier creoles from Haiti, Trinidad, Martinique, St. Thomas, Louisiana; Papiamentu; and Sranan Tongo
van Ginneken	1928	Afrikaans
Stolz	1986	focus on Dutch Creole data; compared with a wide variety of contact languages
Stolz	1987a,b	Dutch contact languages and Berbice Dutch respectively
Holm	1988	numerous
Bruyn & Veenstra	1993	Berbice Dutch and Afrikaans
den Besten & van der Voort	1999	English Atlantic creoles
de Kleine	2007	numerous
Bakker	2014	Berbice Dutch and Skepi Dutch

⁴¹ Not all studies fit as well into these categories as some do, of course. Yet other ones fit into more than one category. The studies within one category may differ considerably from each other in quality, depth, and detail. The classification is purely illustrative to provide the reader a quick impression and it is not aimed to be exhaustive. See van Rossem (2015) for a comprehensive bibliography of Dutch Creole related publications and manuscripts.

Table 2.17: Discussion of language history, demographics, and language features

Hesseling	1905	van Rossem	1996a
Reinecke	1937	Sabino	2012
den Besten & Muysken	1992	van Sluijs	2013a
Highfield	1993		

Table 2.18: Demographic studies with specific focus

Sprauve, Cooper & Villevik	1984	African origin enslaved	
Goodman	1985; (1988)	St. Eustatius as origin of Dutch Creole	
Stolz & Stein	1986	early demographics, implications creole formation	
Arends & Muysken	1992	early demographics, implications creole formation	
van Rossem	2013b	Dutch speaking origin of seventeenth century population	

Table 2.19: Studies with a focus on the origin of the Dutch Creole lexicon and other features

Vercoullie	1919	van Rossem	1996b; 2000
Hesseling	1933	Stein	2002
Stolz	1984b		

Table 2.20: (Re)publications of primary data

Stein	1982	Moravian songs christmas 1754	
Stein	1986c	a children's sermon 1796	
van Rossem & van der Voort	1996	anthology of 250 years of Dutch Creole documentation	
Stein & van der Voort	1996	Oldendorp and Kingo dictionaries	
Oldendorp	2000; 2002	Oldendorp's original manuscript	
Magens	2009	translation of Magens 1770 by Peter Bakker & Hein van der Voort	
Stein	2010	three dialogues by Oldendorp	
den Besten & van Rossem	2013	Nelson's collected Dutch Creole words and sentences	

Other studies reproduce primary data (see Table 2.20 above) or discuss the background of the authors of those data (see Table 2.21 below).

Table 2.21: Philological background

Stein	1986a	Moravian brethren Martin and Böhner
Stein	1992	Moravian writer Böhner
Stein	1998	Oldendorp
Peucker	2010	Oldendorp
van Rossem	2013a	Nelson
Stein	2014	Pontoppidan

More linguistically oriented studies are sorted according to the type of data they investigate: only eighteenth century data (Table 2.22), a sample of eighteenth and twentieth century (Table 2.23), or only twentieth century data (Table 2.24).

Table 2.22: Studies focusing on the eighteenth century data or documents

Bowen	1979	discourse analysis Magens 1770
Williams	1984	discourse analysis Magens 1770
Stein	1985	comparison early letter writers
Stein	1986b	list of Moravian manuscripts
Stein	1989	comparison early letters
Muysken & van der Voort	1991	reflexives in Moravian manuscripts (1)
Hinskens	1995	discussion Moravian Dutch Creole documents in archives Bethlehem, PA
Hinskens & van Rossem	1995	plural marking Moravian data
van der Voort & Muysken	1996	reflexives in Moravian manuscripts (2)

Table 2.23: Studies focusing on the eighteenth and twentieth century data or documents

Sprauve	1990	eighteenth century slave letters and twentieth century spoken narratives
Muysken	2003	loss, retention, restitution of Dutch vocabulary in Dutch Creole
Sørensen & Bakker	2003	reduplication
van Sluijs	2014b	imperfective aspect markers

Table 2.24: Studies focusing on the twentieth century data or documents

Graves	1977	all-round; partly based on field work
van Diggelen	1978	syntactic structure
Bradford	1982	phrase, clause, sentence structure
Stolz	1983	prosody
Stolz	1984a	computer-aided data analysis
Bradford	1986	morphology
Sabino	1986	tense-aspect markers
Sabino	1988	copulas
Sabino	1990	phonology
Sabino	1994; 1996	phonology language death
Russel-Webb	2006	obstruent voicing
van Sluijs	2013b	all-round
van Sluijs	2014a	past time reference marking

2.4. A sketch of Virgin Islands Dutch Creole⁴²

The language sketch in this section serves as a reference for various properties of Dutch Creole grammar. It is solely based on de Josselin de Jong (1926) and thus not representative of the language found in the eighteenth century missionary documents, planter dialogues, and the slave letters.

2.4.1. Phonology

Dutch Creole has a vowel system of nine vowels (see Table 2.25; de Josselin de Jong's (1926) spelling is shown in angle brackets). Stolz (1986: 50) interprets the written Dutch Creole data as having long and short vowels. However, Sabino (1990: 89), who made recordings of the last speaker of Dutch Creole, did not find any evidence of a quantity contrast in the Dutch Creole vowels. Instead, she found a quality contrast for the midvowels /e/ vs. /ɛ/, and /o/ vs. /ɔ/. Due to lexical loss, Sabino (1990: 88–89) found only one low vowel, /a/, in the speech of her informant, but she hypothesizes that “length was not a distinctive feature of the [Dutch Creole] vowel system [in general]” (1990: 89). De Josselin de Jong's (1926: 9) description of the difference between the two vowels <a> and <aa/ā> (see Table 2.11 in §2.2.6.4.3) also suggests a quality difference.

⁴² This section is a slightly adapted version of the language descriptive part of my chapter (van Sluijs 2013a) contributed to the *Survey of Pidgin and Creole Language Structures*, edited by Susanne Maria Michaelis, Philippe Maurer, Martin Haspelmath and Magnus Huber (2013b).

Stolz (1986: 44) analyzes the schwa in Negerhollands as “a general (full) vowel allophone restricted to atonic syllables, where the corresponding full vowel may occur in the place of the schwa as well.”⁴³ Indeed, the schwa occurs quite often in atonic syllables, as an allophone of a full vowel in the place of the schwa (e.g. *di andə*, *di andu* ‘the other’; de Josselin de Jong 1926: 56). Sabino (1990: 71) mentions occurrences of schwa, where it had been inherited from the lexifying language, as in her example *ketəl* ‘kettle’, from English *kettle* or Dutch *ketel*, or where a schwa was been inserted in the Negerhollands form, as in her example *milək* ‘milk’, from English *milk*.⁴⁴ In these types of occurrence the schwa cannot be analyzed as an allophone of any vowel, which gives us reason to include it as a phoneme in the vowel inventory of Dutch Creole.

Table 2.25: Vowels

	<i>front</i>	<i>central</i>	<i>back</i>
<i>close</i>	i <i>, (y <y>)	ɤ <ö>	u <u>
<i>close-mid</i>	e <ē>		o <ō>
<i>open-mid</i>	ɛ <e>	ə <ə>	ɔ <o>
<i>open</i>		ɑ <a>, a <ā>	

In de Josselin de Jong’s (1926) texts there are only two words that contain /y/ <y> and three which contain /ɤ/ <ö>. The preposition *yɪ* (‘out (of)’) occurs more frequently with the unrounded high front vowel resulting in the form *it*, while the word *rötl* (‘wrestle’) has the variant *rutl* (Stolz 1986: 42). Sabino (1990: 72) found that “there is no phonemic contrast between [Dutch high rounded central vowel ɤ] and Negerhollands high back vowel”, so she assigns the former to Negerhollands /u/. In parallel, she views [y] as an allophone of /i/, because the former occurs only in contexts where it alternates with the latter.

Besides /ei/ and /ou /, Sabino (1990: 72) also analyzes /ai/ and /oi/, as diphthongs. She notes [au] as allophone of /ou/, and [ui] of /oi/, and mentions that tense and lax vowels may alternate in the diphthongs.⁴⁵

⁴³ “ein auf atonische Silben beschränktes generelles Vokalallophon der sogenannten Vollvokale die [...] aus dieser Position [...] nicht ausgeschlossen sind.”

⁴⁴ But the schwa may also here have been inherited from Dutch *melk* /mɛlək/. Sabino (2012: 149) mentions other such cases where the Dutch Creole syllable structure is identical to Dutch, but because the presence of the schwa is obscured by Dutch spelling practices, Sabino analyzes them as cases of non-etymological vowels. Thus, Dutch Creole /dɛrəm/ ‘intestine’ does in fact correspond to regional Dutch *derm* /dɛrəm/ ‘intestine’, just as Dutch Creole [fɛruk] and [foruk] ‘fork’ correspond to Dutch *vurk* /vʏrək/ or *vork* /vɔrək/ ‘fork’.

⁴⁵ Sabino (1990: 72) uses *long* and *short* instead of *tense* and *lax*.

Except for /u/ and /ə/, all vowels may optionally be nasalized before a nasal consonant. Vowel quality is minimally contrastive in pairs like *speel* /spel/ ‘to play’ vs. *spel* /spɛl/ ‘pin’, *maan* /man/ ‘moon’ vs. *man* /man/ ‘man’, and *boot* /bot/ ‘boat’ vs. *bot* /bɒt/ ‘but’. In some cases, however, the tense vowels (e, a, o) are in free variation with their lax counterparts (ɛ, ʌ, ɔ), for example, *gooi* /goi/ ~ *goi* /gɔi/ ‘(to) throw’ (Stolz 1986: 51). The tense close-mid vowels may likewise alternate with the corresponding closed vowel, as in *eenteen* /enten/ ~ *intin* /intin/ ‘nothing’ (Stolz 1986: 50).

Dutch Creole has 20 consonants, which are set out in Table 2.26 (de Josselin de Jong’s 1926 spelling is given in angle brackets if it deviates from IPA). The alveolar trilled [r] may be replaced by a uvular fricative [ʁ] when preconsonantal (Stolz 1986: 65, citing Boretzky 1983: 71).⁴⁶ The sound [v] may occur as an allophone of either /f/, /w/, or /b/. Sabino counts /v/ as a phoneme, since it “cannot be unambiguously associated with any of the other segments” (Sabino 1990: 75), and because there are occurrences where it does not alternate with any other sound. In words originating from Dutch there is often variation between an /h/ onset and a zero onset, e.g. *ham* ‘3SG’ versus *am*.

Table 2.26: Consonants

		<i>bilabial</i>	<i>labio-dental</i>	<i>dental/alveolar</i>	<i>post-alveolar</i>	<i>palatal</i>	<i>velar</i>	<i>glottal</i>
<i>plosive</i>	<i>unvoiced</i>	p		t			k	
	<i>voiced</i>	b		d			g	
<i>implosive</i>								
<i>nasal</i>		m		n			ŋ	
							<ñ>	
<i>trill</i>				r				
<i>fricative</i>	<i>unvoiced</i>		f	s	ʃ <š>			h
	<i>voiced</i>		v	z				
<i>affricate</i>	<i>unvoiced</i>				tʃ < tš >			
	<i>voiced</i>				dʒ < dž >			
<i>lateral</i>				l				
<i>approximant</i>		w				j		

In words of English or African origin, among which certain names of animals or plants, the affricate /dʒ/ occurs, e.g. *dzhidzhambu* ‘ginger’. The

⁴⁶ This observation must be based on de Josselin de Jong’s (1926: 10) report that he distinguishes between <r>, and a superscript <ʳ>, which reflects a ‘very weak, hardly audible r’ (de Josselin de Jong 1926: 10). The fact that de Josselin de Jong does not indicate which kind of rhotic <ʳ> is supposed to reflect probably means that it represents a rhotic that was not uncommon in the West European Dutch speaking area. Given that Dutch Creole’s most important lexifiers are West Flemish, Zeelandic and Standard Dutch, this probably means an alveolar trill.

voiceless affricate <tsh> occurs in the word *tshokful* ‘chock-full’, and it occurs as the reflex of the Dutch diminutive suffix, in words as *kikintshi* ‘little chicken’ (Stolz 1986: 74–75). Sabino does not count [tʃ] as a phoneme, because in her recordings /dʒ/ is minimally contrastive (*dzhis* ‘just’, *his* ‘hoist’, *lis* ‘listen’, and *ris* ‘raise’), whereas [tʃ] is not (Sabino 1990: 75). Although Sabino’s comment that “Mrs. Stevens [...] pronounced [tʃ] and [dʒ] as unitary phonemes” (1990: 75) suggests so, it is not entirely clear whether this means that the sound written consistently as <tsh/tʃ> by de Josselin de Jong (1926) was variably pronounced by Mrs. Stevens as [tʃ] or [dʒ], or not. In any case, in the soundfiles made available by Sabino (2012), one can clearly hear Mrs. Stevens consistently pronounce [tʃ] in words as *kikintshi* ‘little chicken’, *kleentshi* ‘small’, *betshi* ‘a bit’, *mutshi* ‘much’, and other words ending in -[tʃi].

Word stress is generally word-initial, though words with word-final stress are not rare. Word stress can in some words shift from word-final to word-initial, and vice versa, e.g. *pushi* ‘cat’ occurs as *pushi* as well within one text (the underlined syllable is stressed). This is very probably due to word stress being subordinate to sentence stress (de Josselin de Jong 1924: 9), though not much is known about sentence stress in Dutch Creole.

2.4.2. Noun phrase

Nouns are morphologically invariable, e.g. *een man* ‘a man’, *twee man* ‘two men’. The third-person-plural pronoun is optionally added to a definite noun that is a referring expression (Sabino 2012: 162–164) to mark number, e.g. *difman* ‘thief, thieves’, *difman sini* ‘thieves’. Natural gender may be expressed by prefixing words like *jung* ‘boy’, *meⁿshi* ‘girl’, *man* ‘man’, or *frou* ‘woman’ to the noun in question e.g. *di manroto sini* ‘the male rats’ (lit. ‘the man-rat they’), *jung-kin* ‘son’ (lit. ‘boy-child’), and *meⁿshi-kin* ‘daughter’ (lit. ‘girl-child’).

There is an indefinite article *een* identical to the numeral ‘one’. It is preposed to the noun, e.g. *een mes* ‘a knife’. The definite article occurs both with full vowel and with neutralized vowel without any semantic contrast: *di kining* ‘the king’, *də kining* ‘the king’. The definite article does not always occur in definite contexts, but it may be used in generic contexts.

The definite article with full vowel is combined with the locative adverb *daa* ‘there’ to form a demonstrative, e.g., *di dag daa* ‘that day’. When the locative adverb *hi(so)* ‘here’ combines with the noun phrase, it is not so clear whether they combine to form a demonstrative in the same way, or whether the interpretation is much more contextual, since the locative adverb retains its literal meaning:

- (6) *Weni am a du də sal bo am, am see: ki*
 when 3SG PST do DET saddle on 3SG 3SG say look
di kleen gut hiso wa sinu ha fo du ondu ju
 DET small thing here REL 3PL have COMP do under 2SG
stet.
 tail
 ‘When he put the saddle on top of him, he said: “See the small thing
 here that is to be put under your tail.”’
 (Roberts; de Josselin de Jong 1926: 59)
- (7) *Ju loo hi a di shi, mi sa loo a di*
 2SG go here LOC DET side 1SG IRR go LOC DET
andə shi.
 other side
 ‘You go this way, I will go the other way.’
 (Joshua; de Josselin de Jong 1926: 19)

Adnominal possessives generally precede the noun and are identical in form to the personal pronouns, except for third-person-singular adnominal possessives, which have a special form, *shi* ‘his, her, its’, e.g. *mi stok* ‘my stick’, *shi sak* ‘his/her bag’. Instead of an adnominal possessive, preposition *fa(n)* ‘of, from’ plus the personal pronoun may be used preceding the noun:

- (8) *fa am pat*
 of 3SG path
 ‘his/her way’
 (Joshua; de Josselin de Jong 1926: 19)

This same construction is also used predicatively, as a pronominal possessive:

- (9) *Diso a fa mi.*
 that COP of 1SG
 ‘That one is mine.’
 (Joshua; de Josselin de Jong 1926: 18)

There are three strategies for building possessor noun phrases (Stolz 1986: 126). Of these, only strategy (i) is not found in Dutch.

- (i) The possessor precedes the possessee and has no marking.

- (10) *di kui bik*
 DET cow stomach
 ‘the cow’s stomach’
 (J.A. Testamark/X; de Josselin de Jong 1926: 28)
- (ii) The possessor precedes the possessee. The possessor is indexed on the head noun via the adnominal possessive pronoun.
- (11) *di meeⁿshi shi coach*
 DET girl 3S.POSS coach
 ‘the girl’s coach’
 (Roberts; de Josselin de Jong 1926: 60)
- (iii) The possessor follows the possessee. the possessor consists of the preposition *fa(n)* ‘of’ plus the noun phrase.
- (12) *di kapitein fan di boot*
 DET captain of DET boat
 ‘the captain of the boat’
 (Roberts; de Josselin de Jong 1926: 43)

The adjective precedes the noun and is invariable, e.g. *een kleen meeⁿshi* ‘a little girl’, *een kleen jung*, ‘a little boy’, *sterək man* ‘strong men’.

There are two comparative constructions of equality. The standard can be marked by *leik/leiki/liki* ‘like’ with the adjective optionally marked by *so* (as in 13).

- (13) *groot liki shi kop*
 big like 3S.POSS head
 ‘as big as his head’
 (Joshua; de Josselin de Jong 1926: 21)

Alternatively, the standard can be marked by *a* ‘as’ with the adjective being marked by *dzhis* ‘just’ (as in 14).

- (14) *dzhis so wis a am*
 just so clever as 3SG
 ‘just as clever as he’
 (Roberts; de Josselin de Jong 1926: 50)

In comparative constructions of inequality the standard is marked by *a* ‘as’, and the adjective by *mee* ‘more’, as in (15). An exception to this is *beetə* ‘better’.

- (15) *Am a me manman a Bru Lion.*
 3SG COP more manly as brother lion
 ‘He is braver than Brother Lion.’
 (Roberts; de Josselin de Jong 1926: 50)

There are no actual occurrences of a productive superlative marking to be found in the texts of de Josselin de Jong (1926), noted as well by Stolz (1986: 142). The superlative forms found are all cases of (partial) suppletion, based on the Dutch (and occasionally English, as in *di langis* ‘the longest’) superlative forms, which are formed by the suffix *-st(e)* and the determiner preceding the adjective:

- (16) *Di noli ham a wees di grostə.*
 DET donkey 3SG PST COP DET biggest
 ‘The donkey was the biggest.’
 (Joshua; de Josselin de Jong 1926: 16)

The personal pronouns, as well as the adnominal possessives, are all identical in form, as can be seen in Table 2.27, with the exception of the third-person-singular possessive, which has its own form, namely, *shi* ‘his, her, its’ (versus *am*). There is no gender distinction in the third person (*am* refers both to male and female), while inanimate referents are referred to by *di* (regardless of number).

There is quite a lot of allomorphy in particular in the plural pronouns. While third-person-singular *am* occasionally occurs as *ham* or *aⁿ* /ã/, this can be seen as allophonic rather than allomorphic variation following the phonological processes presented in §2.4.1. As to the plural pronouns, first-person-plural *ons* occasionally shows the allomorph *ong* (/oŋ/). Second-person-plural *jen* occurs as well as *jin*, *jinə* or *jini*, with a distribution that makes it hard – if not impossible – to pick out one form as the main form of which the rest are variations. The third-person-plural pronoun occurs as *sinu*, *sini*, *senr*, *sinə*, *seni*, or *zinə* (and some more marginal variations of this kind), of which *sinu* and *sini* are the main and most frequent forms (see Hinskens & van Rossem 1995 and van Rossem 2000 for more background on the pronouns and Chapter 6 for a distribution of the variants per speaker).

Table 2.27: Pronouns

	<i>Subject/object pronouns</i>	<i>Adnominal possessives</i>
1SG	mi	mi
2SG	ju	ju
3SG.ANIM	am	shi
1PL	ons	ons
2PL	jen	jen
3PL	sinu	sinu
3.INAN	di	shi/sinu

The indefinite pronouns are *eengut*, *somgut* ‘something’, *eenteen* (*gut*) ‘nothing’, *eenteen folak* ‘nobody’, and *som fulak* ‘someone’ (de Josselin de Jong 1926). The forms with *eenteen* also occur with the negator *nit* ‘not’ preceding and as such parallel the English indefinite polarity sensitive pronouns with *any*, reported by de Josselin de Jong as well (1926: 78). Notice the parallel in the formation of indefinite pronouns with *som* ‘some’ and the English pattern with *some*. *Eenteen* is also the adnominal negator (‘no’), which is why the noun *gut* ‘thing’ is often added for the meaning of ‘nothing’. (Thus, Dutch Creole *eenteen gut* literally translates as ‘no thing’.)

2.4.3. Verb phrase and TMA marking

I will only briefly discuss the TMA markers here, as most of them will be extensively analyzed in the following chapters. Dutch Creole has five preverbal markers relating to tense, aspect, and modality (see Table 2.28). The unmarked verb typically has present time reference, but as shown in Chapter 3, unmarked verbs may also have past time reference. The extent to which the unmarked verb may have future time reference is still up for future investigation.

Most verbs with past time reference are preceded by past marker *(h)a* (see Chapter 3). Stolz (1986: 160) points out that the use of *(h)a* is much broader than the Dutch past-tense construction as in some cases it can be translated with a Dutch perfect or pluperfect.

Future time reference and intention is expressed by *sa(l)*.

Dutch Creole has a number of preverbal aspect markers. Imperfective aspect is expressed with *lo* – which frequently occurs as *loo*. This item also functions as a future marker, or more specifically a marker of prospective aspect. Future/prospective aspect is also expressed with *lo lo*. *Lo* also occurs in constructions with a locative copula (and other locative verbs), possibly under the influence of the English progressive construction (‘he was reading’) to express progressive aspect. There is no semantic

difference between the construction with and the one without the copula (van Diggelen 1978: 75), as shown in (17a–b). The items *lo* and *lo lo* in their various uses are discussed in Chapter 4.

- (17) a. *fo ki di maan a bin da lo skin.*
 COMP see DET moon PST be there PROG shine
 ‘to see the moon which was shining there.’
 (van Diggelen 1978: 75)
- b. *Di maan a loo skin.*
 DET moon PST IPFV shine
 ‘The moon was shining there.’
 (van Diggelen 1978: 75)

Table 2.28: Tense-modality-aspect markers

	Tense/Modality	Aspect	Possible source
Ø	Present; Past, (Future)	-	Verb stem
<i>ha/a</i>	Past	-	West Flemish <i>a</i> , past tense form of <i>ein</i> ‘have’; Dutch <i>heb</i> ‘have’; Portuguese <i>ha</i> ‘has’
<i>sa(l)</i>	Future	-	Dutch <i>zal</i> ‘will’
<i>lo^a</i>	-	Imperfective	Dutch <i>loop</i> ‘go, walk’; Dutch Creole <i>lo(op)</i> ‘go’
<i>lo</i>	-	Prospective	Dutch <i>loop</i> ‘walk’; Dutch Creole <i>lo(op)</i> ‘go’; Portuguese <i>logo</i> ‘soon’
<i>lo lo</i>	-	Prospective	Dutch Creole imperfective <i>lo</i> + Dutch Creole <i>lo</i> ‘go’
<i>kan</i>	-	Habitual	Dutch <i>kan</i> ‘can’; Dutch Creole <i>kan</i> ‘can’
<i>kaa</i>	-	Perfect	Portuguese/Spanish <i>acabar</i> ‘finish’; Dutch Creole <i>kaba</i> ‘finish’
<i>sa</i>	Conditional	Perfect	
<i>kaa</i>	Counterfactual deontic necessity	Perfect	

a = In 18th century data, the form *le* is used.

Perfect aspect is expressed with *kaa* (see Chapter 5). Habitual aspect is marked by *kan*, which is homophonous with the modal verb *kan* ‘be able to’.

The past-tense marker (*h*)*a* can be combined with any other particle apart from the future particle *sa(l)*. The combination of *sa* with perfect *ka* results in either a conditional (18) or a perfect deontic counterfactual (19).

De Josselin de Jong (1926: 99) notes in his wordlist for *sa kaa* that it “is used in the various meanings of English *should have* and *would have*.”⁴⁷

- (18) *Tomés am sa kaa gi am mee a di da.*
 maybe 3SG IRR PRF give 3SG more as 3.INAN there
 ‘Maybe he would have given him more than that.’
 (Roberts; de Josselin de Jong 1926: 57)

- (19) *Ju sa kaa draa di a ju han.*
 2SG IRR PRF carry 3.INAN LOC 2SG hand
 ‘You should have carried it in your hand.’
 (Joshua; de Josselin de Jong 1926: 20)

In Table 2.29 the modal verbs are shown with the modality expressed (see Chapter 6). There are (just) a few attestations of the modal necessity verb *mut*, which is the common modal for the expression of necessity in the eighteenth century documentation of Dutch Creole. In the later data, the construction *ha fo* occurs.

Table 2.29: Modal verbs

	<i>Modality</i>
<i>kan</i>	Possibility
	Permission
	Epistemic possibility
<i>ha fo / fo</i>	Necessity
	Obligation, suggestion
	Epistemic necessity
<i>mangkée (fo)</i>	Volition
<i>wel</i>	Volition

In the eighteenth century data, the most frequent modal volitional auxiliary is *wel*, although the verb *mankeer* ‘want, need’ occurs as well occasionally. In the twentieth century data, both *wel* and *mangkée* occur. As a main verb, *wel* expresses affinity or love to something or someone (translated as ‘like’ or ‘love’). There are occurrences of *kan* and *ha fo* with an epistemic interpretation, but especially for *kan*, the epistemic interpretation does not seem to have really been grammaticalized. Besides *ha fo*, modal necessity

⁴⁷ “[sa kã] wordt gebruikt in de verschillende beteekenissen van eng. “should have” en “would have”.”

is often expressed through *fo* (variants: *for*, *fu*), with (what was originally) the purposive complementizer carrying all the meaning.

The negation particle (*no*, *na*, *nu*, *nə*, *ni*, *ne*) precedes the verb and all particles, but follows the subject.

There are seven copulas, which differ in their distribution (see Table 2.30).

Table 2.30: The functions of the Negerhollands copulas, based on Stolz (1986: 152) and Sabino (1988: 204)

	<i>Identity NP</i>	<i>Adjective</i>	<i>Location</i>	<i>Focus</i>
<i>a</i>	++	+	-	+
<i>wees</i>	+	+	+	-
<i>bi</i>	-	+	++	-
<i>bee</i>	+	-	+	-
<i>bin</i>	-	-	++	-
<i>mi</i>	±	++	+	-
Ø	+	+	+/-	-

++ = the function of the majority of occurrences of this item

+ = a possible function of this item

± = a marginal function of this item

- = function not attested for this item

Wees is the most neutral copula, and is used for predicate NPs, adjectives, and locative phrases alike. *Wees* is in principle the only copula that is used in combination with TMA markers and auxiliaries (as in 20), though exceptions occur (note the copula *bin* with past tense marker in 17a above).

- (20) *Kining, di ple a wes fosiku lelik.*
king DET place PST COP horrible bad
‘King, the place was very bad.’
(Roberts; de Josselin de Jong 1926: 46)

Stolz (1986) regards the copulas *be*, *bi*, and *bin* as allomorphs of the same copula, which occurs predominantly with predicate locatives. A zero copula exists as well, though it is marginal.

Mi is used with predicate adjectives in particular. *A* is the only copula that can function as a focus marker (21), and it occurs especially with noun predicates. Both items cannot bear stress nor occur in sentence-final position (Graves 1977).

- (21) *A mi kaa mata am.*
 COP 1SG PRF kill 3SG
 ‘It’s me who killed him.’
 (Joshua; de Josselin de Jong 1926: 16)

2.4.4. Simple sentences

The word order is Subject–Verb–Object:

- (22) *Ju loo mata di kui!*
 2SG PROSP kill DET cow
 ‘You are going to kill the cow!’
 (J.A. Testamark/X; de Josselin de Jong 1926: 28)

A non-pronominal subject is occasionally left-dislocated and followed by a pronominal subject:

- (23) *Di noli ham a wees di grosta.*
 DET donkey 3SG PST be DET biggest
 ‘The donkey was the biggest.’
 (Joshua; de Josselin de Jong 1926: 16)

In ditransitive constructions both objects follow the verb, most frequently in the order bare indirect object– direct object:

- (24) *Sini a gi ons duku.*
 3PL PST give 1PL cloth
 ‘They gave us clothes.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 34)

The indirect object may be coded with a preposition (*a* ‘to’ or *fo* ‘for’), mostly following the direct object, as in (25), but it may also precede it (26).

- (25) *Am sa gi di a am betji betji.*
 3SG IRR give 3.INAN LOC 3SG bit RED
 ‘He would give it to him bit by bit.’
 (Roberts; de Josselin de Jong 1926: 56)

- (26) *Di kinin [...]bring ko fo sinu een bottle sopi.*
 DET king bring come for 3PL a bottle liquor
 ‘The king [. ..] brought them a bottle of liquor.’
 (Roberts; de Josselin de Jong 1926: 57)

The benefactive object may also be marked with a special serial verbal construction *gi* ‘give’ plus indirect object:

- (27) *As ju kan fang som fligi gi mi.*
 if 2SG can catch some fly give 1SG
 ‘If you can catch me some flies [...]’
 (Christian; de Josselin de Jong 1926: 36)

The passive voice is formally not distinguishable from the active:

- (28) *Am na mangkee graaf mi am.*
 3SG NEG want bury with 3SG
 ‘He didn’t want to be buried with him.’
 (Christian; de Josselin de Jong 1926: 36)

In constructions such as (29), *kaa* should be interpreted as an aspectual marker with the passive voice unmarked as in (28) (Stolz 1986: 199–200).

- (29) *Am bi da a di bom kaa bin [...]*
 3SG be there LOC DET tree PRF tie
 ‘He was tied to that tree.’
 (Roberts; de Josselin de Jong 1926: 55)

In reflexive constructions, the pronoun is used with the lexical element *sel* ‘self’, as in (30), but incidentally reflexives with only the pronoun occur.

- (30) *Am a lo, klet amsél.*
 3SG PST go dress 3SG.self
 ‘He went and dressed himself.’
 (Roberts; de Josselin de Jong 1926: 60)

The verbs *gi* ‘give’, *koo* ‘come’, and *loo* ‘go’ occur in serial verbs constructions. As noted and shown in (27), the verb *gi* ‘give’ may be used to introduce a recipient or beneficiary. The verbs *koo* and *loo* are used with the meaning ‘here, in this direction’ (31) and ‘away (from here)’ (32), respectively (van Diggelen 1978: 76–77). *Koo* in this meaning is only

found with the verbs *kuri* ‘run’, *bring* ‘bring’, *loo bring* ‘go for’. In this meaning, *loo* is only found with the verbs *kuri* ‘run’, *flig* ‘fly’, *dra(g)* ‘carry, take’, and *drai* ‘change, return’ (van Diggelen 1978: 76–77).

- (31) *Eenteen kaa draai koo.*
 nobody PRF return come
 ‘Nobody had come back.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 31)

- (32) *Am a flig lo mi di flut.*
 3SG PST fly go with DET flute
 ‘He flew away with the flute.’
 (Roberts; de Josselin de Jong 1926: 40)

2.4.5. Complex sentences

Coordinating conjunctions are *en* ‘and’ (conjoins clauses and nouns), and *ma* ‘but’. Adverbial clauses are introduced by conjunctions such as *weni* ‘when, if’, *tee* ‘until’, *astar* ‘after’, and others. Compact purpose clauses are introduced by the preposition *fo* ‘for’.

With verbs of saying and knowing, as with other verbs, there is a strong preference for zero-marking of the complement clause. Marking of complement clauses does occur incidentally, with *dat* ‘that’ and with the serial verb *se* ‘say’:

- (33) *Nu di kining no a weet see də man a*
 now DET king NEG PST know say DET man PST
kaa maa een boot zeil bo di lan.
 can make INDF boat sail on DET land
 ‘Now the king didn’t know that the man could make a boat sail on land.’
 (Roberts; de Josselin de Jong 1926: 43)

Relative clauses are either zero-marked or introduced by *wa* ‘what’; they follow the head noun. Beside with *en*, nouns are conjoined with *mi* ‘with’:

- (34) *Am a nee shi skwee mi shi kompos.*
 3SG PST take 3S.POSS square with 3S.POSS compass
 ‘He took his square (tool for navigation) and his compass.’
 (Roberts; de Josselin de Jong 1926: 43)

2.4.6. Interrogative constructions and topicalization

Polar questions are only marked by intonation:

- (35) *Di man see, ju wel di kabái?*
 DET man say 2SG like DET horse
 ‘The man said: “Do you want/like the horse?”’
 (Joshua; de Josselin de Jong 1926: 21)

In content questions (see Table 2.31 for a list of question words), the interrogative is fronted:

- (36) *Wa bagin ju kaa maa?*
 what bargain 2SG PRF make
 ‘What bargain did you make?’
 (Joshua; de Josselin de Jong 1926: 11)

Table 2.31: Question words in twentieth century Dutch Creole

<i>(a)widi</i>	‘who’
<i>wa</i>	‘what’
<i>(a)(w)api</i>	‘where’
<i>wamaa</i>	‘why’
<i>huso</i>	‘how’
<i>huweel</i>	‘how much/many’

The copula *a* functions as a focus marker, as mentioned in §2.4.3. It can be used to focalize verbs (see (37)), nouns, prepositional phrases (see (38)), and adverbs. The focalized element is placed sentence-initially preceded by *a*:

- (37) *A lak am lo lak!*
 COP laugh 3SG IPFV laugh
 ‘He is laughing!’
 (Roberts; de Josselin de Jong 1926: 63)

- (38) *A fa ju di bi!*
 COP of 2SG 3.INAN be
 ‘It’s yours!’
 (Roberts; de Josselin de Jong 1926: 63)

2.4.7. Concluding remarks

This language overview serves primarily as a general reference guide to facilitate comprehension of the Dutch Creole examples discussed in the remainder of this dissertation. The topic of serial verb constructions, as introduced in §2.4.4, returns in §3.3.3 (Chapter 3), §4.7 (Chapter 4), §5.5.2 (Chapter 5), and §6.4.5 (Chapter 6). The copulas (§2.4.3) play an essential role in the discussion of §4.7.3 (Chapter 4). As mentioned in §2.4.3, Chapter 3 focuses on the expression of past tense, Chapter 4 on the expression of imperfective and prospective aspect, Chapter 5 on perfect and completive aspect, and Chapter 6 on the expression of modality. Yet, most categories play a role to some extent in discussions throughout all these four chapters.

CHAPTER 3. WHAT'S PAST IS PAST: VARIATION IN THE EXPRESSION OF PAST TIME REFERENCE IN VIRGIN ISLANDS DUTCH CREOLE NARRATIVES

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3.1. Introduction

One of the typical features of Caribbean creoles is the occurrence of both, overtly marked and unmarked past tenses (see, among others, Holm 1988: 148–150). This has been attested in Virgin Islands Dutch Creole (abbreviated to Dutch Creole), where past time reference can either be expressed by the preverbal particle (*h*)*a* or be unmarked (see Graves 1977; Van Diggelen 1978; Stolz 1986; Sabino 1986; Bruyn & Veenstra 1993). Quantitative variationist studies in a number of varieties of English and English-lexifier creoles have shown that this variation is not random (for example, Schifffrin 1981; Tagliamonte & Poplack 1988; Patrick 1999; Poplack & Tagliamonte 2001; Hackert 2004). Following up on those studies, in this paper I investigate the impact that various factors such as narrative discourse function, aspect, stativity, and syntactic priming have on the expression of past time reference in twentieth-century Dutch Creole through a quantitative variationist study of de Josselin de Jong's (1926) corpus (see §2.2.6.4).

I show how Dutch Creole diverges from other creoles in its expression of past time reference: Overt pasts are predominant, while in other Caribbean creoles zero pasts, typically analyzed as zero perfectives, are the default (see, for example, Winford 1992 for Trinidadian Creole). Similarly, narrative clauses show the highest rate of overt pasts in Dutch Creole, a context where varieties of English and English-lexifier creoles typically display low rates of overt pasts. Nevertheless, the alternation between overt and zero pasts can be explained on the basis of the same general linguistic principles as those active in the English-lexifier creoles.

3.2. Time reference and aspect

3.2.1. Past time reference

TIME (or temporal) REFERENCE is an abstract concept used to describe whether a situation is asserted to occur in the past, present, or future. It should not be confused with TENSE, a language-specific morphological

category that may express both temporal and aspectual values (Bertinetto 1994: 393). Thus, the combination of Dutch Creole preverbal *(h)a* and a verb can be seen as a past tense that expresses past time reference. Since the use of *(h)a* does not affect the form of the verb in Dutch Creole, unlike a past tense in Germanic and Romance languages where the term originates from, I instead refer to *(h)a* as a past marker, short for past time reference marker. TOPIC TIME is an intuitively useful term when studying time reference within a narrative context: It refers to the temporal interval at which a situation is asserted to occur but makes no reference to whether or not the situation extends in time beyond this time interval (Klein 1994: 4).

Dutch Creole has been identified as having a tense system with ABSOLUTE past time reference (Bruyn & Veenstra 1993: 40). Absolute past time reference means that a situation is asserted to have occurred during a time interval or point in time prior to the moment of speech. Or in other words that is, that topic time has been established as preceding the moment of speech. By contrast, RELATIVE past time reference is interpreted relative to a point of reference provided by the context (which may, but need not be, the moment of speech; Comrie 1986: 58). Somewhat confusingly, in creole studies, relative past time reference usually refers to a situation whose topic time is established relative to a point of reference in the context (relative), which, in turn, is asserted to occur prior to the moment of speech (absolute) (see Comrie 1986: 65, who calls these constructions “absolute relative”). In the remainder of this study, I use the term past time reference to refer to absolute past time reference.

In this study, the main focus of investigation is the alternation between clauses that do and clauses that do not overtly express past time reference. The following examples illustrate this variation. Dutch Creole uses the preverbal particle *(h)a* to express past time reference, as in (1b). The main clause in (1a) equally has past time reference, but here only the bare verb *see* ‘say’ is used.

- (1) a. *Di nolí see: koo loo mi mi a Briment.*
 DET donkey say come go with 1SG LOC Bremen
 ‘The donkey said: “Come join me to Bremen.”’
- b. *Den di twee fa sinə a wanda mangkandə.*
 then DET two of 3PL PST walk together
 ‘Then the two of them went together.’
 (Joshua; de Josselin de Jong 1926: 16)

I refer to the situation in (1a) as an occurrence of a ZERO PAST, while the situation in (1b) is referred to as an occurrence of an OVERT PAST.

3.2.2. Aspect

A number of studies have shown that the expression of past time reference is influenced by the aspect value of the clause in question (for example, Winford 1992; Patrick 1999; Hackert 2004). This issue is discussed in more detail in §3.4.1. In this section, I introduce and define the different aspect categories that are discussed later on in this study. Bohnemeyer (2002: 38ff) introduces a comprehensive model to define aspectual notions presented in Figure 3.1 below.

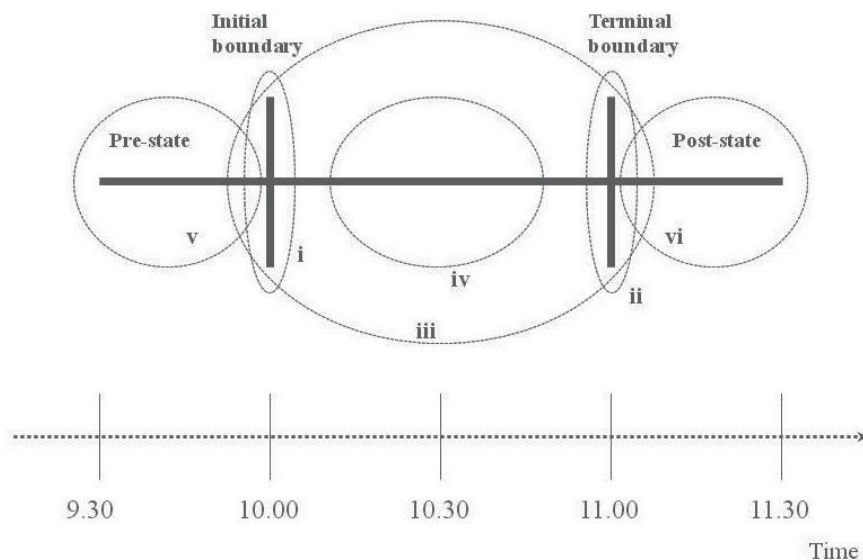


Figure 3.1: Aspect according to six logical boundary operators, adapted from Bohnemeyer (2002: 38)

The following discussion and all the definitions used are derived from Bohnemeyer's model and discussion. There are six logical or conceptual boundary operators that select parts of a situation: (i) the initial boundary; (ii) the terminal boundary; (iii) the situation as a whole, including the initial and the terminal boundary; (iv) an internal part of the situation, without entailment of its boundaries; (v) the prestate; and (vi) the poststate. In Figure 3.1, below the boundary operators there is a time axis that indicates a logical relation between time and the aspectual operators (for example, the prestate precedes the initial boundary in time, while the poststate follows the terminal boundary). The time indicated on the axis is just a random example, and

instead of an hour, some situations may last only seconds, others days, or even years.

PERFECTIVE ASPECT sees the situation as a whole, and therefore coincides with boundary operator (iii). This definition corresponds to Bybee et al. (1994: 54), who define perfective aspect as “signal[ling] that the situation is viewed as bounded temporally,” which means that both the beginning and the termination of the situation are referred to. This makes perfective situations ideal for “narrating sequences of discrete events in which the situation is reported for its own sake, independent of its relevance to other situations” (Hopper 1982, cited in Bybee et al. 1994: 54). It is a crosslinguistically common feature of past situations to have perfective aspect as the “default” interpretation (Bybee et al. 1994: 153).

PROGRESSIVE ASPECT coincides with boundary operator (iv): An internal part of the situation is selected without entailment of its onset (the initial boundary) or its termination (the terminal boundary). This definition is also compatible with Bybee et al.’s (1994: 125), where progressive aspect is defined as “a situation in progress at a particular reference point, either in the past or present.” Progressive aspect is marked in Dutch Creole with the preverbal element *lo* (variably occurring as *lo* or *loo*), as in (2).

- (2) *Am a lo sla shi tamərin.*
 3SG PST IPFV hit 3S.POSS tambourine
 ‘He was drumming on his tambourine.’
 (Roberts; de Josselin de Jong 1926: 50)

HABITUAL ASPECT refers to a situation that occurs regularly during a certain time period that may be made explicit in the context (compare Dahl 1985: 97 and Comrie 1976: 27–28). Reference time may select all or only a part of that time, with which an unspecified number of occurrences of the situation is asserted to overlap (Bohnenmeyer 2002: 261). Dutch Creole typically uses the preverbal habitual marker *kan* to signal habitual aspect (see 3), but also *lo* and *kaa gwen*, which occurs only once in the data.⁴⁸

- (3) *So am a kan sit an kris.*
 so 3SG PST HAB sit and cry
 ‘So he used to sit and cry.’
 (Joshua; de Josselin de Jong 1926: 15)

⁴⁸ Since *lo* can be used in both, progressive and habitual situations, it is best characterized as an imperfective aspect marker which “view[s] a situation from within” without making reference to the onset or termination of the situation (Comrie 1976: 24). This encompasses progressive and habitual situations.

All three habitual markers can occur with or without *(h)a*. In this study, clauses introduced by *weni* ‘when’ in the sense of ‘for each time that’ or ‘whenever’ have also been counted as habitual.

INCHOATIVE ASPECT coincides with the initial boundary of a situation and as such signals the onset of a situation. It can be expressed lexically with the verbs *bigín* ‘begin’ and *staat* ‘start’, but also with the verb *loo* ‘go’, as the main clause in (4) shows.

- (4) *Weni də ferí kaa lo shi pat, di koki lo slaap.*
 when DET fairy PRF go 3S.POSS road DET cook go sleep
 ‘When the fairy had gone, the cook fell asleep.’
 (Roberts; de Josselin de Jong 1926: 41)

The aspect categories perfective, progressive, habitual, and inchoative are discussed in relation to the expression of past time reference in Dutch Creole in §3.4.1.

3.3. Methodology

3.3.1. Quantitative variation analysis

The linguistic field of variationist sociolinguistics has shown that linguistic, discourse, and social factors may underlie language variation (for example, Weinreich et al. 1968). In order to be able to determine what factors condition the variation, a quantitative approach is adopted in variationist studies. A quantitative variationist approach is used for this study following the considerable number of fruitful studies on variation in the expression of past time reference in a number of languages. Due to the limited sociolinguistic information available for the Dutch Creole data used for this study, the main focus is on linguistic factors.

An important assumption of variationist research is that different forms may have the same function. They may differ functionally in certain contexts, but there can be contexts in discourse where these differences are neutralized. Depending on the research question, these contexts may be exactly where the variation under investigation occurs. However, any context where *(h)a*’s function of expressing absolute past time reference may be neutralized is excluded. In these contexts, *(h)a* may be in variation with, for instance, perfect marker *ka*, in which case a different alternation would be investigated. §3.3.3 lists all contexts included in and excluded from this study.

The quantitative method that has been the standard in variationist studies is variable rule analysis (see Sankoff 1988, cited in Tagliamonte 2006: 130–133), which uses generalized linear models (Tagliamonte & Baayen 2012:

136). In recent years, however, a new statistical method, generalized linear mixed-effects models, has become available. I have used this method in the open source and free statistical software R (R Core Team 2012). Central to the difference between a generalized linear and a generalized linear mixed-effects model is the difference between fixed-effect and random-effect factors. Fixed-effect factors have an exhaustive possibility of levels, such as animacy (human/animate/ inanimate), or the presence or absence of a temporal adverbial: Either there is one or there is none. By contrast,

[r]andom-effect predictors [...] have levels that constitute only a subset of the possible categories available in the population. Individuals (and also words, e.g., nouns, verbs, or adjectives) are typical examples of random-effect factors. If, in a statistical analysis, a random-effect predictor is analyzed as if it were a fixed-effect predictor, then the conclusions reached will only be valid for the individuals and words sampled. Thus, if the sample comprises eight individuals, the statistical model will be valid for only those eight individuals. Conclusions do not automatically generalize to the relevant populations of interest.

(Tagliamonte & Baayen 2012: 143)

Because generalized linear models can only treat variables as fixed-effect factors, generalized linear mixed-effects models have the advantage of being able to “bring individual differences into the statistical model” (Tagliamonte & Baayen 2012: 144).

3.3.2. The data

The data set used for the current study is a collection of folktales published by de Josselin de Jong (1926). It contains narratives spoken by descendants of the enslaved population from the former Danish colony, who created Dutch Creole in the late seventeenth or early eighteenth century. This is the only generally available Dutch Creole source of its kind and size (see §2.2.6.4 for more details of the data collection and the nine speakers who contributed the data). It contains 82 narratives: 74 folktales, five narratives of personal experience, two generic narratives, and one generic narrative that ends in a short narrative of personal experience, seven children’s rhymes, 12 ritual songs, and two lists. This equals a total of about 5160 clauses. §3.3.3 discusses which of these have been used for this study.

The available sociolinguistic background information on de Josselin de Jong’s informants is discussed in §2.2.6.4 (see Tables 2.10 and 2.12). The limited number of speakers makes it impossible to test for sociolinguistic effects on the variable expression of past time reference. The data set is too homogeneous with respect to factors age (spanning between 60 for

informant Roberts and 82 for A.C. Testamark) and sex (A.C. Testamark, the oldest informant is the only female).

The imbalance of de Josselin de Jong's informants' contribution is taken into consideration in so far possible by the statistical method, discussed in §3.3.1. The contributions by Francis, George, and A.C. Testamark are too marginal to be compared to those of the others, but they are included for general results.

3.3.3. Variable context

A precise definition of the variable context is fundamental in quantitative linguistic research as it enables one to compare the results of different studies (Hackert 2008: 128). This section describes both, the contexts included and, of equal importance, the contexts excluded from the data set. The variable under investigation is the occurrence of *(h)a* expressing absolute past time reference in Dutch Creole.⁴⁹

A variable context is any context where one expects to find variation with respect to a particular feature. By necessity, the variable context in this study includes all contexts where the variable occurs, and where it does not but could have occurred (Labov's 1972c: 72 "principle of accountability", cited in Tagliamonte 2006: 12–13). Past time reference is expressed in Dutch Creole through preverbal *(h)a*, as in (5a), or it is unexpressed, as in (5b).

- (5) a. *Am a baa lo fluk Rabbit fo goudif.*
 3SG PST constantly IPFV curse Rabbit for thief
 'He was constantly cursing, calling Rabbit a thief.'
 (de Josselin de Jong 1926: 28)
- b. *Si fut slaa di horən fa di kabrita.*
 3S.POSS foot hit DET horn of DET goat
 'His foot/feet hit the goat's horn(s).'
 (de Josselin de Jong 1926: 27)

⁴⁹ The past marker variably occurs as *ha* or *a*. In this study, I have disregarded this variation and counted both as occurrences of the past marker *(h)a*, for the following two reasons: First, the distinction is phonologically conditioned. Two contexts have been reported to favor initial /h/ (preceding nonsonorant consonants and pauses); both contexts make out nine percent of informant Joshua's data (Sabino 1986: 56–58). This is exactly the percentage of the occurrence of *ha* in Joshua's data. Second, only the data produced by Joshua and Prince contain many instances of *ha*. It is virtually absent in the data from most other informants, while Roberts uses it in less than 1% of all cases. This may reflect regional variation. Joshua and Prince were from Nisky on St. Thomas, while the other informants were from St. John (see §2.2.6.4).

(*H*)*a* always precedes the verb, but it does not need to be adjacent to it: Aspect and modality markers may come between, as well as some adverbs, as illustrated in (5a).

Contexts without absolute past time reference, contexts in which no variation of the variable has been attested, and contexts where the absence or presence of the variable is indeterminate must be excluded. Table 3.1 below gives an overview of the contexts to be included and excluded.

Table 3.1: The variable context for the study of the expression of past time reference

	INCLUDED	EXCLUDED
Absolute past time reference	temporal clauses introduced by <i>weni</i> ‘when’, <i>eekee tit</i> ‘each time’, <i>bi di tit</i> ‘by the time’, (<i>dzhis</i>) <i>leiki</i> ‘just when/as soon as’, <i>tee/till</i> ‘until’, <i>fo</i> ‘before’ adverbial clauses of reason: <i>fodima</i> ‘because’	temporal clauses introduced by <i>astu/astər</i> ‘after’
Relative time reference	narrative within direct speech ^b	past-before-past ^a resultative/perfect aspect marker <i>kaa</i> indirect speech direct speech complement clauses to <i>ki</i> ‘see’, <i>hoo</i> ‘hear’, <i>fin it</i> ‘encounter’

a = Excluded are situations asserted to have been completed before the preceding situation (for a main clause); or before the main clause (for a subordinate clause).

b = A sequence of events within direct speech.

Table 3.1: The variable context for the study of the expression of past time reference (continued)

Non past time reference	hypothetical constructions futures in the past modals with actual occurrence implied at point in narrative modals generic sentences
Invariant contexts	first verb serial verb construction noninitial verbs serial verb construction ^c verbs modified by modal verbs in purposive <i>fo</i> -clauses copulas of state: Ø, <i>a</i> , <i>mi</i> , <i>bi</i> , <i>be</i> , <i>bin</i> proverbs and songs
Indeterminate contexts	<i>na a</i> (negation plus <i>(h)a</i>) <i>na</i> (negation without <i>(h)a</i>) verbs starting in /a-/

^c = Tense, modality, and aspect markers may occur on both the initial and the noninitial verb in a serial verb construction, but they “[g]enerally [...] precede only the first verb in a Dutch Creole serial verb construction” (Sabino 2012: 173). The noninitial verbs in serial verb constructions have been excluded, because they seem to disfavor TMA marking in general, not past marking in particular.

I briefly discuss the exclusion of the indeterminate contexts, the occurrence of the negator *na*, and verbs starting in /a-/. *Na* leads to complications in the analysis, because it can be both a negation marker equivalent to other negators (*nə*, *ne*, *ni*, *no*, and *nu*), and a contraction of negation marker *nə* and past marker *a* (de Josselin de Jong 1926: 94). Logically, *na* may also be a contraction of *na* and *a*. Contraction is, however, not compulsory: *nə a* and *na a* occur as well.

Table 3.2 shows that 87% of the non-negated clauses contain overt past marking.⁵⁰ Overt past marking is only slightly less frequent in clauses negated by *nu*. In clauses negated by *na*, however, the distribution is exactly the opposite: There are hardly any occurrences of overt past marking following negator *na*. With $p < .001$, a Fisher's Exact test strongly suggests that the differences in Table 3.2 are not due to chance.

Table 3.2: The effect of negation on the expression of past time reference

	(h)a	%
<i>na</i>	12/87	14%
<i>no</i>	12/20	60%
<i>nu</i>	26/32	81%
no negation	2814/3222	87%
<i>Fisher's Exact test: p < .001</i>		

I assume that the exceptionally low count of overt past marking with *na* is the result of *na* occasionally being a contraction of the negator (*na* or *nə*) and past marker *a*. This means that it is impossible to determine in any given occurrence whether a verb negated by *na* contains a zero or an overt past. Thus, all clauses negated by *na* should be excluded from the analysis as instances of invariable context. Verbs negated by *na* where (h)a is present can be included in the analysis for the obvious reason that in those cases, the presence of (h)a can be determined.

Verbs that start in /a-/ are significantly less often preceded by (h)a than other verbs (see Table 3.3). There are four verbs or variants of verbs that start in /a-/: *agree* 'agree' (five occurrences), *anturt* 'answer' (22), *a* (variant of *ha* 'have'; two occurrences), and *a fo* (variant of *ha fo* 'have to/must'; one occurrence). When included as a fixed-effect factor, it retains high significance in the final statistical model (see §3.4) with $p = .001$ (see Table 3.3). The analysis could not be extended to verbs with other vowels in the onset, as there are only three such occurrences in total: two occurrences of *it* 'put out' and one occurrence of *ordə* 'demand'.

Table 3.3: The effect of verbs that start with the vowel /a-/ on the expression of past time reference

Verb starting in /a-/	(h)a	% (h)a	p-value
yes	18/30	60%	.001
no	2845/3258	87%	base line

⁵⁰ The results for the negators *ne*, *ni*, and *nə* have been omitted from the table because their total counts were too low. They have not been excluded from the data set.

A comparison between Tables 3.2 and 3.3 shows that overt past marking is considerably more frequent before verbs starting in /a-/ than before negator *na*. Perhaps, the speakers are less inclined to merge the two vowels into one in the former case. The lower rate of overt past marking could then be attributed to a difficulty for the annotator, de Josselin de Jong, to perceive the past marker before the verbs starting in /a-/. In any case, for the verbs *agree*, *anturt*, *a*, and *a fo* it also seems impossible to determine whether *(h)a* is truly absent or just not perceived. For this reason, they are excluded.

Thus, only contexts with absolute past time reference that allow variation in past time reference marking are included. Excluded are contexts where it is impossible to determine whether or not *(h)a* is used, that is, when the negator *na* is not followed by *(h)a* and before verbs that start in /a-/.

3.3.4. Analysis of the data

In a generalized linear mixed-effects model, one can investigate whether a predictor or factor has an effect on the variable in the data as a whole, but also whether this effect differs across individuals or different verbs. The latter two categories have indeed been included in the analysis as random-effect predictors. Table 3.4 lists the variability with respect to past time reference marking among the various speakers.

Table 3.4: De Josselin de Jong's (1926) informants and their respective variability in the expression of past time reference

Speaker	<i>(h)a</i>	%
Joshua	1010/1124	90%
Prince	27/36	75%
Francis	8/8	100%
J.A. Testamark	166/201	83%
J.A. Testamark/X	120/138	87%
George	16/18	89%
A.C. Testamark	14/14	100%
Joseph	57/60	95%
Christian	165/177	93%
Roberts	1262/1482	85%
Total	2845/3258	87%

There was considerable variation in marking past time reference on the various verbs (estimated variance: 0.6111, number of groups: 215).⁵¹

⁵¹ This is the general effect of the random factor Verb lemma without taking into account the effect of Stativity per verb lemma. The effect of Stativity can be seen in the generalized linear mixed-effects model output in Appendix D. See also §3.4.2.

However, the estimated variance for the individual speaker turned out to be zero. When the “estimated variance for [a random effect factor] is effectively zero [...], [t]he random effect [...] is superfluous,” and thus, “speaker variation is unlikely to distort our conclusions” (Baayen 2008: 282). There was no deviation attested for any individual speaker with respect to any of the fixed-effect factors with a significant main effect: The predictors aspect and stativity, discussed in §3.4, retain their significance.⁵² An anova-test used to compare the goodness-of-fit between the model with the individual speaker as a random-effect factor and one without indicates that there is no significant difference between them ($p = .999$, $df = 1$).

Nevertheless, an unknown part of the variation attested is likely to be attributable to social and/or regional variation. However, due to the limited number of speakers and lack of sufficient (relevant) sociolinguistic background information, it is impossible to recover what social and regional predictors have played a role and to what extent.

3.4. Results⁵³

3.4.1. Past time reference and aspect

It has been observed in a number of creole languages that predicates used to describe past habitual situations are unmarked for past time reference significantly more often than predicates describing perfective situations (for example, Hackert 2004: 171 for Bahamian Creole English; Patrick 1999: 189 for Jamaican Creole; Winford 1992: 337 for Trinidadian Creole). The absence of overt past marking on habitual predicates is even hypothesized to be a “cross-linguistically common phenomenon” not restricted to creoles (Hackert 2004: 171). Sentences with habitual predicates differ from generic sentences “by their lack of lawlikeness” (Dahl 1985: 97), but in other respects they are semantically similar. In fact, according to Krifka et al. (1995: 17–18), habitual situations are by definition generic situations. Hackert (2004: 170) proposes to account for their similar behavior in terms of the similarities between the two situation types: both are nonspecific and involve “induction and generalization.” Given that “generic sentences are [most frequently] expressed with the most unmarked TMA category” (Dahl

⁵² The variability of the factor *preceding marking* across the various speakers could not be calculated.

⁵³ Unless stated otherwise, all p-values in this section have been calculated in R using a generalized linear mixed effects model, with *individual speaker* and *individual verb* as random-effect factors, and *grammatical aspect* (§3.4.1), *stativity* (§3.4.2), and an interaction between *preceding clause* and *preceding sentence* (see §3.4.4) as fixed-effect factors. See Appendix D for the complete output file of the statistical analysis.

1985: 100), the semantic similarity between habitual and generic sentences could account for a low rate of past marking of habitual predicates. Indeed, in Dutch Creole, habitual predicates are significantly less often overtly marked for past time reference than perfective predicates (see Table 3.5) but the rate of overt past marking is also significantly lower with progressive predicates. Ongoing (progressive) situations generally overlap with adjacent situations, as can be seen in a narrative (Schiffrin 1981: 50). This is illustrated in (6), where the progressive situation in (6c) overlaps with the situations in (6a) and (6b) (examples from de Josselin de Jong 1926: 30).

- (6) a. *Wani sini a rak, hus a kaa tu ret ron.*
 when 3PL PST reach house PST PRF shut right round
 ‘When they arrived, the house was closed all around.’
- b. *Sini a ho abini fa di hus: kraw kraw!*
 3PL PST hear inside of DET house crack crack
 ‘From inside the house, they heard: “crack, crack.”’
- c. *Di tit pushi a loo bree di been fa di roto*
 DET time cat PST IPFV break DET bone of DET rat
sini wa sini a kaa mata.
 3PL REL 3PL PST PRF kill
 ‘At that time, the cats were breaking the bones of the rats that they had killed.’

In Labov & Waletzky’s (1967) theory of narrative structure (discussed in §3.4.3), clauses describing a situation that overlaps with that of other clauses are called RESTRICTED clauses, because they can be moved and placed elsewhere within a restricted part of the narrative (Fleischman 1990: 160). Depending on the narrative, a restricted clause can take scope over one to, in theory, all but one of the other clauses.

There are also FREE clauses, which have scope over all of the narrative and can be placed anywhere without changing the temporal or logical interpretation of the narrative (Fleischman 1990: 166). Habitual predicates are typically found in either free or restricted clauses, while progressive predicates are typically found only in restricted clauses, with scope over a limited part of the narrative. Thus, what habitual and progressive situations have in common is that they can have scope over other parts of the narrative. The habitual and generic situations can thus be extended to include progressives in that all three can have scope over other elements in a narrative, albeit to different degrees (see Table 3.5 below).

In Caribbean English-lexifier creoles (CECs), perfective aspect is expressed by unmarked verbs (Winford 1993b: 33–34). Unmarked verbs are typically associated with a past interpretation in CECs, but they are also used to describe generic and habitual situations (Winford 1993b: 35–36). This leads to an interesting paradox: Perfective predicates are typically unmarked in terms of TMA, and habitual situations – which are semantically unlike perfective situations – are typically unmarked in CECs because the unmarked verb is seen as a perfective marker that has been extended in use to describe habitual situations. Nevertheless, as already mentioned above, habitual predicates are found to be more frequently unmarked for past time reference than perfective predicates in at least three CECs, because they are akin to, if not a type of, generic situations.

Table 3.5: The distribution of the expression of past time reference according to aspect (see Appendix D)

Aspect ^a	(h)a	%	p-value
perfective	2739/3105	88%	base line
progressive ^b	56/79	71%	p < .001
habitual	34/54	63%	p < .001
inchoative	11/15	73%	p = .020

a = There were four cases indeterminate between an inchoative and a perfective reading, all marked by (h)a, and one iterative situation not listed in this table.

b = Situations with progressive aspect mostly consist of a verb preceded by *lo*, but there are also eight complex progressives, consisting of the copula *wees* plus progressive *lo* plus the verb. Other elements may intervene between the copula and *lo* + verb. All eight of these complex progressives are overt pasts. This must be due to idiosyncratic behaviour of *wees*, which uses almost categorically overt pasts. Omitting these eight occurrences leads to a slightly lower and equally significant overt past rate of progressive clauses of 69%.

Unlike the situation in CECs, perfective aspect is not expressed by the most neutral TMA category in Dutch Creole. The TMA marker most closely associated with perfective aspect is (h)a, which is most suitably termed a past marker, as it also occurs with past imperfective situations, as in (6c). The fact that (past) habitual situations are more closely associated with the unmarked verb than perfective situations, not only in CECs but also in Dutch Creole, supports the idea that habitual situations are associated with the unmarked verb for a different reason than perfective situations are in CECs (see also Winford 1993b: 42–44).

In Dutch Creole, habitual predicates may be unmarked in terms of TMA, or be preceded by imperfective aspect marker *lo*, habitual aspect marker *kan*, or *kaa gwen*.

Table 3.6: The expression of past time reference in past habitual predicates according to TMA marker

Past habitual situations	N	% (h)a
Ø	17/36	47%
<i>kan</i>	8/9	89%
<i>loo</i>	8/8	100%
<i>kaa gwen</i>	1/1	100%
Total	34/54	63%

Table 3.6 shows that only habitual situations without an overt habitual marker have a strong preference for zero pasts, which means that the lower rate of overt past marking of habitual predicates is determined not by the presence of the imperfective marker, but rather by its absence. The interpretation of the unmarked verb in Dutch Creole is discussed further at the end of §3.5.2.

A difference between the CECs discussed and Dutch Creole is that not only past habitual but also past progressive predicates occur less frequently with (h)a in Dutch Creole, as Table 3.5 shows. This similar pattern with progressive and habitual predicates can be explained by the way aspect affects SITUATION TYPE, that is, the classification of situations (not verbs) based on their internal temporal features, such as duration, telicity, and stativity (Smith 1997: 17–20). Contextual information and/or aspect marking can change the interpretation of a situation to such an extent that it acquires semantics not present or, in some cases, even incompatible with its basic situation type.

It cannot be stressed enough that there is an essential difference between aspect (also known as grammatical or viewpoint aspect) discussed in §3.2.2, and situation type (also known as lexical aspect). Viewpoint aspect can alter the basic situation type of a situation in such a way that it would have very different internal temporal properties. Smith (1997: 48–53) refers to such altered situation types as DERIVED SITUATION TYPES. What habitual and progressive aspects have in common is that they induce a stative interpretation (de Swart 1998: 354, 359), regardless of the internal temporal features of the same situation in an aspectually neutral context.

The induced stative interpretation of habitual and progressive predicates is by no means incompatible with the observation that states can be habitual, progressive, or perfective (Bertinetto 1994: 395). Habitual and progressive aspects still have their own semantics, and certainly, neither of them has the same semantics as aspectually neutral states. What is essential is the semantic feature that habitual and progressive situations have in common with states, namely, they hold for a time period preceding (and typically also

following) the topic time.⁵⁴ This makes overt expression of past time reference less relevant, just as time reference is not relevant for generic situations, which are cross-linguistically described using the most unmarked TMA category available (Dahl 1985: 99–100). The habitual and progressive situations in (7) and (8a), respectively, overlap in duration with other, perfective situations in the narrative. As mentioned earlier, the potential overlap is bigger for the habitual situation in (7) than for the progressive situation in (8a).

- (7) *Eekee folāk sini a kan rup am Rookarbús.*
 each people 3PL PST HAB call 3SG Red.riding.hood
 ‘Everybody used to call her Little Red Riding Hood.’
 (Joshua; de Josselin de Jong 1926: 18)
- (8) a. *Am loo kurí a fo fan di karoshí.*
 3SG IPFV run in.front of DET wagon
 ‘He was running in front of the wagon.’
- b. *Eke foluk am fin, am see:*
 each people 3SG find 3SG say
 ‘Everybody he encountered, he told:’
 (Joshua; de Josselin de Jong 1926: 15)

Thus, reduced relevance of past time reference marking can account for the lower frequency of *(h)a* in past progressive and past habitual predicates. Nevertheless, overt expression of past time reference is not as irrelevant for past habitual and past progressive situations as it is for generic situations. One finds that in the twentieth-century Dutch Creole folk stories in de Josselin de Jong (1926), the habitual and progressive predicates are still more often overtly marked for past time reference than not.

3.4.2. Past marking and stativity

Stativity is a situation type feature recurrently investigated in creole studies with respect to the variable expression of past time reference. STATIVE situations “will continue[,] unless something happens to change that state” (Comrie 1976: 49). As such, they are not “temporally bounded” (van Valin 2006: 156–157), as (9) shows, where the stative situation must be interpreted as continuing beyond the topic time.

⁵⁴ Not by coincidence, the implication that the situation holds before the moment of reference, or topic time, is the only purported analogy between progressives and states that Bertinetto (1994: 401) is not able to negate.

- (9) *Di gobnéé a ha een mooi meⁿshikin.*
 DET governor PST have INDF beautiful daughter
 ‘The governor had a beautiful daughter.’
 (de Josselin de Jong 1926: 26)

Previous studies on CECs have shown that any effect exerted by stativity is often actually the result of idiosyncratic preferences of individual verbs – in particular, *have* – that are highly frequent and occur mainly or only with the stative meaning (see, among others, Patrick 1999: 257; Tagliamonte 1999: 225; Poplack & Tagliamonte 2001: 142; Hackert 2004: 165–166). As Table 3.7 shows, the frequency of the various stative verbs differs considerably in Dutch Creole, too: The verbs *ha* ‘have’ (N=100) and *wees* ‘be’ (N=86) account for 62% of all stative predicates (N=302). The rate of stative *ha* (84%) and *wees* (97%) being preceded by *(h)a* is considerably higher than the mean rate of overt past marking on stative predicates (78%). Two other notorious stative verbs, *weet* ‘know’ (52%) and *mankéé* ‘want’ (40%), show significantly lower rates of overt past marking, and so do the two modals, *kan* ‘can’ and *ha fo* ‘have to’.

Table 3.7: The rate of occurring as a stative predicate and the rate of overt past time reference marking on stative predicates

Verbs	Stative	%	<i>(h)a</i> when stative	%
<i>ha</i> ‘have’	100/126	79%	84/100	84%
<i>wees</i> ‘be’	86/95	91%	83/86	97%
<i>weet</i> ‘know’	27/27	100%	14/27	52%
<i>ha fo</i> ‘have to’	26/26	100%	15/26	58%
<i>kan</i> ‘can’	20/20	100%	12/20	60%
<i>mankéé</i> ‘want’	11/11	100%	5/11	45%
<i>bang</i> ‘be afraid’	7/7	100%	4/7	57%
<i>nam</i> ‘be called’	7/7	100%	6/7	86%
<i>wel</i> ‘like’	7/7	100%	4/7	57%
<i>woon</i> ‘live’	5/5	100%	5/5	100%
<i>ding</i> ‘think’	3/5	60%	2/3	67%
<i>dos</i> ‘be thirsty’	1/1	100%	0/1	0%
<i>hotu</i> ‘belong’	1/1	100%	1/1	100%
<i>ko</i> ‘come’	1/107	1%	1/1	100%
Total	302/445	68%	236/302	78%

The statistical generalized linear mixed-effects model is able to take into account the variability in past time reference marking across the different verbs. However, the effect of stativity remains significant at $p = .017$ (see Table 3.8), despite the enormous variance already observed in Table 3.7

(estimated variance: .96641, number of groups: 215). The difficulty in investigating the exact effect of stativity in the current dataset is that when the idiosyncratic verbs *ha*, *wees*, *weet*, *kan*, *ha fo*, and *mankéé* are removed from the analysis, only a handful of infrequent verbs remain. One could remove the factor stativity from the analysis altogether, assuming that its effect actually reflects the past marking rates of individual verbs, as suggested above, which should already be captured by the random-effect predictor *individual verb*. However, doing so leads to a significantly worse fit of the model ($\chi^2 = 10$, $df = 3$, $p = .021$), since the residual deviance of the model including stativity is lower (1745) than that of the model without (1755). Thus, although I do not have an explanation for the divergent behavior of the six verbs mentioned above, nor am I able to define the exact effect of the predictor stativity, it does seem to have some explanatory value in the model.

Table 3.8: Stative situations; the highly frequent verbs *ha* and *wees* included

Situation type	(h)a	%	p-value
non-stative	2609/2956	88%	base line
stative	236/302	78%	p = .017

Thus, given its statistical significance, stativity is included in the final model on which the tables in §3.4 are based, unless stated otherwise.

3.4.3. Past marking and narrative type

The type of narrative has been found to influence the likelihood of occurrence of zero pasts (Hackert 2004: 203). In the Dutch Creole data, 98% of all narratives are folktales. In Bahamian Creole English, folktales show a lower rate of overt past marking than narratives of personal experience, which is explained assuming that overt past marking becomes redundant once it loses its temporal referential function, as is the case in fiction (Hackert 2004: 196). Whatever the cause, this is not supported by the Dutch Creole data, where folktales show a very high rate of overt pasts.

A number of studies have shown how different parts of a spoken narrative influence the likelihood of occurrence of zero pasts (for example, Schiffrin 1981; Tagliamonte & Poplack 1988; Hackert 2004).⁵⁵ They follow Labov & Waletzky (1967)'s framework for narratives of personal experience. In these narratives, people talk about situations they have experienced in their own life. Hackert (2004: 195) has shown that this framework is applicable to folktales too. The main building blocks of

⁵⁵ Schiffrin investigates the occurrence of the historical present in Standard English narratives.

narratives are NARRATIVE EVENTS presented in NARRATIVE CLAUSES: If switching the order of two clauses results in a change in the interpretation of the order in which the events happened, then the two clauses involved are narrative clauses (Labov 1972b; Labov & Waletzky 1967, both cited in Schiffrin 1981: 47). A cluster of narrative clauses forms the COMPLICATING ACTION (hence, narrative clauses are alternatively called COMPLICATING ACTION, or CA CLAUSES): This is where the story is told in a sequence of “temporally-ordered narrative events” (Schiffrin 1981: 48), as illustrated in (11a–c). ORIENTATION CLAUSES, exemplified in (10a–c), give background information, such as *where* and *when* of the narrative events, and describe “the identities of the characters” (Schiffrin 1981: 48).

(10) Orientation section starts:

- a. *Di a ha een jung, a nam Ebí.*
3.INAN PST have INDF boy PST be.called Ebi
‘There was a boy, his name was Ebi.’
- b. *Shi maa a ha een plantái.*
3S.POSS mother PST have INDF plantation
‘His mother had a plantation.’
- c. *Sinə a ha mushi kabái.*
3PL PST have many horse
‘They had many horses.’
(Joshua; de Josselin de Jong 1926: 15)

(11) Complicating action section starts:

- a. *Een dag ham a loo a di sabán.*
INDF day 3SG PST go LOC DET field
‘One day, he went to the field.’
- b. *Ham a fang shi maa kleen kabái.*
3SG PST catch 3S.POSS mother small horse
‘He caught his mother’s small horse.’
- c. *Ham a dzhumb boo shi rigí.*
3SG PST jump on 3S.POSS back
‘He jumped on its back.’
(Joshua; de Josselin de Jong 1926: 15)

Orientation clauses typically describe states and situations that begin before the onset of narrative events and continue into the CA (Schiffrin 1981: 49).

As opposed to CA clauses, orientation clauses are typically not temporally ordered: The order of orientation clauses within one orientation section can be changed without consequences for the interpretation of the information provided (Schiffrin 1981: 49).

In Dutch Creole, the (perfective) CA clause is the context in which past time reference is most frequently overt. For all other languages in Table 3.9, CA clauses allow the highest rate of zero pasts, the exact opposite pattern. The high occurrence of zero pasts (or historical presents) in CA clauses in Bahamian Creole English and Standard English is attributed to the strong disambiguating force of CA clauses: Overt past time reference is redundant and can be dispensed with because CA clauses report events that are asserted to have already happened and thus receive a past (time reference) reading by default in the context of a narrative (Hackert 2004: 192). This explanation does not apply to twentieth-century Dutch Creole. Table 3.9 makes it clear how strongly Dutch Creole deviates from the other creoles in its high rate of overt pasts in CA clauses, where Bahamian Creole English and Jamaican Creole predominantly have zero pasts. Strikingly, the overall rate of overt past marking in Dutch Creole surpasses even the rate of overt past marking in Standard English.

Table 3.9: Percentage of overt pasts in CA versus orientation clauses

	CA clauses		Orientation clauses		Total	
Dutch Creole ^a	2521/2835	89%	70/96	73%	2591/2931	88%
Bahamian CE ^b	333	12%	64	14%	397	12%
Jamaican Creole ^c	1313	30%	288	36%	1601	31%
Samaná English ^d	332/554	60%	126/145	87%	458/699	66%
Standard English ^e	907/1288	70%	259/268	97%	1166/1556	75%

a = No statives were included to ensure optimal comparability.

b = These data are taken from Hackert (2004: 189), Table 5.25. Only the verb category that distinguishes unmarked versus inflected past has been used.

c = These data are taken from Patrick (1999: 256), no statives included. The data included in this table as orientation clauses are, in fact, non-CA clauses, so this value is not, in an absolute sense, comparable to the values for the other languages. It is still valid for comparison, because orientation clauses are expected to represent the majority of non-CA clauses, as is the case for the other languages in Table 3.10.

d = These data are taken from Tagliamonte & Poplack (1988: 518), excluding the orientation clauses with suppletive/irregular past forms *was* and *had*.

e = These data are taken from Schiffrin (1981: 51).

The lower overt past rate in orientation clauses compared to CA clauses in Dutch Creole can be accounted for by the functional similarities between orientation clauses on the one hand and progressives and habituals on the other hand, as discussed in §3.4.1: Just like progressives and habituals, orientation clauses assert that the situation holds for a time period preceding and following the topic time, which means that these situations may overlap with situations described in other clauses.

3.4.4. Marking on the preceding verb (syntactic priming)

When form or construction X is in variation with form or construction Y, an occurrence of form or construction X increases the likelihood of form or construction X reappearing. This is referred to as the “parallel processing effect” (for instance, Poplack 1979; Scherre & Naro 1991: 23) or the “principle of concord” (Sabino 1986: 62). Poplack & Tagliamonte (2001: 126–127) interpret it as an effect of “morphological priming.” In cognitive linguistics, terms such as structural priming, syntactic persistence, and syntactic priming are used (Gries 2005: 265 and the references therein). Following Gries (2006: 265), I adopt the latter term. This effect is so widely attested in all domains of language that “it should be considered as a serious candidate for a universal of language use and processing” (Scherre & Naro 1991: 30).

Syntactic priming appears to be a significant factor in many studies on variable expression of past time reference. In all but one variety of Early African American English, the absence or presence of past time reference marking is a significant predictor of the occurrence of that same marker on the immediately following verb (Poplack & Tagliamonte 2001: 126–127). The same effect was found for Dutch Creole for de Josselin de Jong’s informant Joshua (Sabino 1986: 62). In these studies, priming is compared across different clauses within the same sentence.

Table 3.10: Syntactic priming effect on the expression of past time reference in the preceding clause within the same sentence

Preceding clause	(h)a	%
preceding (h)a ^a	543/625	87%
no preceding clause	2244/2507	90%
preceding Ø ^b	52/120	43%
preceding indeterminate ^c	6/6	100%

a = Clauses with *a kaa*, where aspect marker *kaa* is preceded by the past marker have been counted as context ‘preceding (h)a’.

b = The effect of the invariant copulas *mi* ‘be’ and *bin* ‘be’, and the presence of perfect marker *kaa* is not different from that of zero pasts (p = .95), so these cases have been included here.

c = The category *indeterminate* refers to occurrences of negator *na* in the preceding clause.

I have replicated this method of investigating the effect of syntactic priming for all of the informants of de Josselin de Jong. In Table 3.10, the rate of occurrence of overt pasts in Dutch Creole is compared in two types of environment: in clauses preceded by other clauses (within the same sentence) and in clauses not preceded by other clauses.

The results obtained in the course of the present study of Dutch Creole indicate that the frequency of overt pasts in clauses preceded by a clause containing (*h*)*a*, as in (12), does not differ from that in initial clauses or noncomplex sentences.

- (12) a. *Weni am a wees aktin jaa hou,*
 when 3SG PST be eighteen year old
 ‘When he was eighteen years old,’
- b. *shi maa a draa am a di templ.*
 3S.POSS mother PST carry 3SG LOC DET temple
 ‘his mother brought him to the temple.’
 (Joshua; de Josselin de Jong 1926: 11)

By contrast, the effect of syntactic priming is clearly visible when the preceding or priming clause in a complex sentence is not marked for past time reference, as in (13b): In this context, zero pasts are even more frequent than overt pasts in the target clause (see Table 3.10 above).

- (13) a. *Alma shi meestu jet bli a fi bran*
 all 3S.POSS master food stay LOC fire burn
 ‘All his master’s food stayed on the fire, burning’
- b. *tee een fan di dak shi mestu ko a*
 until one of DET day 3S.POSS master come LOC
 di koki see am:
 DET cook say 3SG
 ‘until one day his master came to the cook to say/and said to him.’
 (Roberts; de Josselin de Jong 1926: 41)

Apart from clauses within the same sentence, syntactic priming has been attested in different CA clauses in Standard English and Bahamian Creole English (Schiffrin 1981: 51 and Hackert 2004: 190, respectively). However, studies such as Scherre & Naro (1991) have shown that the syntactic priming effect holds in many different linguistic environments. Therefore, one would expect the effect of syntactic priming not to be confined to narrative clauses. In principle, one would expect any sentence, not only a CA clause, to exert a

priming effect onto the following sentence. Table 3.11 shows that orientation clauses cause as much an effect of syntactic priming as CA clauses. Thus, in the analysis outlined below, I include the factor preceding sentence and examine the syntactic priming effect of the preceding CA and orientation clause.

Table 3.11: Syntactic priming effect on the expression of past time reference

Preceding CA clause	(h)a	%	Preceding Orientation clause	(h)a	%
(h)a	1877/2055	91%		123/149	83%
Ø	195/299	65%		21/38	55%
indeterminate ^a	133/144	92%		45/60	75%

a = Included as indeterminate preceding context are clauses other than CA or orientation clauses, that is, abstract, coda, or evaluation clauses, initial clauses of a narrative, long intervening sections of direct or indirect speech (that is, those containing at least one switch of turn between two characters), and clauses where the presence of (h)a or Ø is indeterminate, for example, the presence of negator *na*.

So far, I have shown that the syntactic priming effect holds between clauses within the same sentence (Table 3.10), and also between adjacent sentences, regardless of whether they contain CA or orientation clauses (Table 3.11). The next logical step is to see if the priming effect would surface in a clause that does not immediately follow the “priming” clause. The finding that “priming is in fact long-lasting” (Gries 2005: 374) predicts that this be indeed the case. Gries studies the alternation between bare indirect objects and prepositional objects, a variable that, unlike time reference marking, does not necessarily occur in every clause. He finds that the priming effect holds with as many as twenty-five intervening clauses.

In the case of past marking in narratives, one expects the variable to occur in every clause, with the exception of intervening direct and indirect speech, relative clauses, and the occasional clause without absolute past time reference, where the variable may occur as well, but in a different function. Although one can expect the priming effect to hold in nonadjacent clauses, every following clause with a different past marker may override the priming effect of the preceding marking. Thus, one can expect the priming effect of past markers to be more short-term.

I have explored the question of whether the priming effect would hold in nonadjacent clauses by investigating whether there is an interaction between the factors *preceding clause*, which involves the marker in the preceding clause within the same sentence, as in (12) and (13), and *preceding sentence*, which involves the marker in a CA or orientation clause within a preceding

sentence. As expected, there is indeed an interaction between these two factors.

First, consider the priming effect in the absence of an immediately preceding clause, that is, in adjacent simple sentences and sentence-initial clauses. When a CA or orientation clause within the priming sentence contains no past time reference marking, the occurrence rate of overt past marking within the target sentence decreases significantly, going from 83% to 67%. In contrast, when the priming sentence contains an overt past, 92% of the target sentences contain overt past marking. This is illustrated in (14): the priming CA clause in (14a), *Am see*, does not contain a past marker. The sentence-initial target clause in (14b), *Sini see*, is also unmarked for past time reference.

- (14) *Am see, am nə haa. Sini see, am a fo loo*
 3SG say 3SG NEG have 3PL say 3SG have COMP go
bring.
 bring
 ‘He said, he doesn’t have [anything]. They said, he has to bring
 [something].’ (Joshua; de Josselin de Jong 1926: 12)

Second, when the priming clause within the same sentence does not contain a past time reference marker, the target clause is less likely to contain an overt past (41% overall, that is, the mean of 61%, 26%, and 33% in Table 3.12) than when the priming clause contains (*h*)*a* (87%), regardless of the marking in the preceding sentence. Yet when there is no past marker in the preceding sentence either, as in (15c) or (15d), the occurrence rate of overt past marking in the target clause drops even lower, to 26%.

- (15) a. *Eenteen fulək no weet am.*
 no people NEG know 3SG
 ‘Nobody knew him.’
 b. *Aⁿ dzhum,*
 3SG jump
 ‘He jumped,’
 c. *am kurí,*
 3SG run
 ‘he ran,’

- d. *am haal mee sterək a sini alga.*
 3SG take.a.swing more strong than 3PL all
 ‘he took a swing more powerful than all of them.’
 (Joshua; de Josselin de Jong 1926: 14)

Third, it seems that when the preceding clause contains *(h)a*, the target clause is most likely to contain *(h)a* as well, regardless of the past marking in the preceding sentence. This is illustrated in (16): target clause (16c) contains *a*, and so does preceding clause (16b), despite the fact that the preceding sentence (16a) contains a zero past.

- (16) a. *Am loo wak fo di meeⁿshi.*
 3SG IPFV wait for DET girl
 ‘He was waiting for the girl.’
 b. *Weni di meeⁿshi a rak,*
 when DET girl PST reach
 ‘When the girl arrived,’
 c. *ham a fin di do hoopoo.*
 3SG PST find DET door open
 ‘she found the door open.’
 (Joshua; de Josselin de Jong 1926: 19)

These observations are summarized in Table 3.12.

Table 3.12: The interaction between the effects of the expression of past time reference (see Appendix D)

	<i>(h)a</i>	%	p-value
no preceding clause and			
preceding sentence = <i>(h)a</i>	1561/1685	93%	baseline
preceding sentence = \emptyset	161/237	68%	p < .001
preceding sentence = indeterminate	155/174	89%	p = .413
preceding clause <i>(h)a</i> and			
preceding sentence = <i>(h)a</i>	412/475	87%	
preceding sentence = \emptyset	40/43	93%	
preceding sentence = indeterminate	20/23	87%	
preceding clause \emptyset and			
preceding sentence = <i>(h)a</i>	27/44	61%	baseline
preceding sentence = \emptyset	15/57	26%	p = .007
preceding sentence = indeterminate	2/6	33%	p = .175

Sabino (1986: 62) explains the variation in past time reference marking in Dutch Creole by attributing it to the interaction between the following two principles: First, past time reference is overtly expressed when not redundant (the functional hypothesis; concurring with Graves 1977: 146–147). Second, in a complex sentence, the expression of past time reference in the first clause affects the expression of past time reference in the following clause (the principle of concord, or syntactic priming, as it is referred to in the current paper).

The significance of syntactic priming is uncontested, although the above discussion has shown that its effect is not restricted to complex sentences, but also works across sentences. By contrast, the functional hypothesis is much less straightforward and does not apply so generally as Sabino's account implies. A clear case of past time reference marking being redundant is when the clause contains or is modified by a temporal adverbial. When there is no temporal adverbial, past time reference marking could be said not to be redundant. Yet, Table 3.13 shows that the presence of a temporal adverbial has no effect on the absence or presence of overt pasts.

Table 3.13: The interaction between temporal adverbials and past time reference marking

Temporal adverbial	(h)a	%
No	2471/2825	87%
Yes	374/433	86%
Pearson's χ^2 test, $\chi^2 = .3137$, $df = 1$, $p = .575$		
Fisher's Exact test, $p = .535$, odds ratio = 1.101146		

Another context where past time reference marking can be argued to be redundant is the CA section of a narrative, which has past time reference by default (Tagliamonte & Poplack 1993: 90).

Table 3.14 : The expression of past time reference according to position in the CA section

Position CA section	N	% (h)a
Initial	187/208	90%
Middle	1855/2101	88%
Final	148/172	86%
Pearson's χ^2 test, $\chi^2 = 1.3585$, $df = 2$, $p = .507$		
Fisher's Exact test, $p = .511$		

a = Including 21 cases of CA sections consisting of only one single clause.

I have shown in §3.4.3 that in Dutch Creole, the CA section is precisely the context where the rate of overt pasts is the highest. The first narrative clause

of a CA section is no more likely to contain an overt past than any other narrative clause, as shown in Table 3.14 above.⁵⁶

Yet, contrary to what I reported in van Sluijs (2014a), there does seem to be a correlation between the presence of a temporal adverbial and a lower frequency of past time reference marking in the very specific context of first occurrence in a CA section, as shown in Table 3.15. It thus seems that there is a small effect of functionality, but exactly opposite to how Sabino (1986: 62) suggested it to work: past time reference marking is here found to be less frequent when redundant.

Table 3.15: The interaction between temporal adverbials and past time reference marking in initial clauses of a CA section

Temporal adverbial	(h)a	%
No	154/164	94%
Yes	33/44	75%
Pearson's χ^2 test, $\chi^2 = 11.6532$, $df = 1$, $p = .001$		
Fisher's Exact test, $p = .001$, odds ratio = 5.078687		

Overall, overt past time reference marking is obviously the norm and it seems unnecessarily complex and difficult to have syntactic priming account for the high frequency of (h)a in cases where it is redundant. It is clear that overt past time reference marking in Dutch Creole is not functional, in the sense that it does not serve for temporal disambiguation; neither are past markers absent when past time reference has already been established. Rather, I assume that the high occurrence rate of overt pasts stems from its functional transparency. I propose the rule in (17) for twentieth-century Dutch Creole.

(17) To describe situations in the past, past marker (h)a is preferred.

This rule can account for every occurrence of (h)a whenever the verb has past time reference. When one assumes the overt past to be the default, only the occurrence of unmarked pasts needs to be explained.

⁵⁶ In Standard English, the first and last CA clauses have been found to typically contain an overt past, while middle clauses contain zero pasts in about one third of the cases (Schiffrin 1981: 51).

3.5. Discussion

3.5.1. Sociolectal differences

Table 3.16 (adapted from Patrick 1999: 245) shows that the rate of overt past time reference marking in creole languages tends to be higher in varieties associated with higher social status. Thus, the languages in Table 3.16 show some correlation between adjustment toward (a local variety of) Standard English and a higher occurrence rate of overt (or in the case of CECs as well: inflectional) past marking (for example, Winford 1992: 335; Hackert 2004: 212–213). Nevertheless, the base line varies considerably among the various languages. Strikingly, most creoles listed in Table 3.16 show a lower rate of overt past time reference marking in their highest sociolectal varieties reported than does Dutch Creole in contexts where the occurrence rate of the past marker is low compared to the Dutch Creole overall average (see, for example, §3.4.1 and §3.4.3). This is remarkable, since de Josselin de Jong's Dutch Creole informants probably belong to a working class, and some perhaps to a lower middle class.

Table 3.16: Inflection rates of 4 creoles according to social class (in part adapted from Patrick 1999: 245)

	Working class		Middle class		High
	lower	upper	lower	upper	
Bahamian Creole English ^a		19% (2811)	38% (2041)	-	-
Jamaican (Veeton)		10% (581)		34% (401)	63% (408)
Trinidadian	25% (861)	49% (1092)	79% (497)	-	-
Guyanese	-	-	14% (367)	35% (992)	-
Guyanese (Bonnette)	-	-	-	46% (358)	-

^a = These data are taken from Hackert 2004: 212.

Dutch Creole used to be spoken in the eighteenth century by colonists of European descent too. The only source written by a representative of the colonial society is Magens (1770), a Dutch Creole grammar containing everyday life dialogues.

As Table 3.17 shows, past time reference marking is almost exclusively marked with *ha*. The only unmarked occurrence is in the construction *wat maek* 'why', shown in (18). Either *wat maek* is the unanalyzable question word 'why', which means that (18) contains a zero copula, or the verb *maek* is unmarked for past time reference.

- (18) *Wat maek hem soo stout?*
 what make 3SG so naughty
 ‘What made him/Why was he so naughty?’
 (Magens 1770: 65)

In any case, *ha* is in variation with perfect marker *ka* – a context excluded from this study – and not with a zero past in Magens (1770). Possibly, the fact that Magens (1770) contains dialogues rather than narratives may be part of the lack of occurrence of unmarked predicates with past time reference in Magens (1770). This because at least in modern Dutch dialogues the present perfect tense is used for perfective situations, for which in narratives the past tense is used (Boogaarts 1999).

Table 3.17: The expression of past time reference in Magens (1770) EDC dialogues

<i>(h)a</i>	%
61/62	98%

The other group of documented eighteenth century Dutch Creole languages users are the German and Danish missionaries. The German speaking Moravian missionaries used the form *a*, while the Danish missionaries used *ha* as past time reference marker. Although the missionaries were L2 users of Dutch Creole, they did produce many narratives in their Bible translations.

In these narratives, predicates that refer to habitual or (stative) characteristic situations, as in (19), are significantly more often unmarked for past time reference (see Table 3.18), regardless of whether the event is stative or not (a χ^2 test to compare the two models shows that the model with stativity does not differ from the model without, $p = .940$).

Table 3.18: The expression of past time reference in fragments of three different Moravian missionary Bible translations: Böhner (nd.a), [Auerbach] (nd), and Anonymous (nd.a) (complete statistical analysis output in Appendix E).

	<i>a</i>	%	p-value
Perfective	245/249	98%	baseline
Progressive/Episodic	37/38	97%	.656
Habitual/Characteristic	69/94	73%	< .001
Total	351/381	92%	

(19) a. perfective

En Em a gie na sender die,
 and 3SG PST give LOC 3PL 3
 ‘And he gave them that,’

b. characteristic

wat groei uit van die Aarde, vor sen Jeet.
 REL grow out of DET earth for 3PL food/eat
 ‘which grows out of the earth, for them to eat.’
 (Anonymous nd.a: 2)

This does not correspond to the twentieth century ADC data discussed above, where not only habitual/characteristic situations are more frequently unmarked for past time reference, but also progressive situations. The pattern observed in the eighteenth century MDC data probably corresponds to the universal lower relevance of past time reference marking for characteristic situations, which is probably also active in their first language, German.

The twentieth-century Dutch Creole speakers who provided the data for the current study are descendants of the eighteenth-century enslaved population of the Virgin Islands. As such, their language, ADC, represents a different variety of Dutch Creole than Magens’s (1770) EDC and the missionaries’ L2 variety of Dutch Creole (see §2.2). Nevertheless, some ADC speakers may have adjusted their speech toward EDC or MDC. On the basis of the phonological structures he uses (Sabino 1990: 154), and the content of his narratives (Sabino 1996: 56), Prince can be identified as least conservative of de Josselin de Jong informants. As discussed in §2.2.6.4.4, Prince’s father was probably a manager on the Moravian missionaries’ Nisky estate. On this basis, Sabino (1996: 56, 60fn32) assumes that Prince had access to MDC, but this requires of course that MDC was actually still used at the Nisky estate and church in the 1860s and 1870s, when Prince grew up. In any case, Prince’s father is likely to have had a higher status than a common plantation laborer and it is possible that if not Prince himself, his father or perhaps grandparents were exposed to varieties of EDC or MDC and may have accommodated their speech accordingly. However, if we expect that this would have resulted in a higher frequency of overt pasts in Prince’s speech, this is not what we find. Remarkably, Table 3.19 shows that it is exactly this least conservative speaker who has the lowest overall rate of overt pasts: 75%.

Knowledge of MDC has also been suspected for Roberts on the basis of phonological characteristics and other unspecified reasons (Sabino 1996: 56, see §2.2.6.4.4). One of these reasons may have been the biblical content of

one of his narratives. However, Roberts does not pattern with Prince, nor with Christian, whose phonological features seem to be similar to Roberts’.

Perhaps this shows that overt past was not associated with higher social status among Dutch Creole speakers, as opposed to, perhaps, phonological features such as maintenance of word-final consonants and consonant clusters. By contrast, the frequency of *(h)a* may not have been so easy to adjust consciously. The biggest challenge is that very little is known about the informants, sociolinguistic variation and the values assigned to it, and the informants’ social aspirations. As a consequence, one cannot do much more than observe that there does not seem to be a correlation between the rate of overt past and the phonological hierarchy presented in Table 3.19.

Table 3.19: De Josselin de Jong’s five most contributing informants plus Prince

Speaker	<i>(h)a</i>	%	Scale from most to least conservative ^a (based on Sabino 1990: 154)
Joshua	1010/1124	90%	1.
J.A. Testamark	166/201	83%	2.
J.A. Testamark/X	120/138	87%	3.
Christian	165/177	93%	4/5.
Roberts	1262/1482	85%	4/5.
Prince	27/36	75%	6.

^a = Please note that this table is an oversimplification of the findings in Sabino (1990: 154). An informant is more conservative with respect to a feature when he deletes, inserts, and simplifies more. The features are: insertion of word final vowels, deletion of single consonants, cluster simplification, epenthesis in word final clusters, and deletion in word final clusters. The table is an oversimplification in the sense that an informant who is considered to be more conservative in the table than another one is not necessarily more conservative on all features, but on most (and vice versa).

3.5.2. Effects of language obsolescence

By the 1970s, there were only six speakers of Dutch Creole left. In 1987, the last speaker died. In this section, I discuss the possibility that the high rate of overt past time reference marking in Dutch Creole was due to LANGUAGE DEATH, or OBSOLESCENCE. Campbell & Muntzel (1989) distinguish four types of language death scenarios. The most common type of language death is applicable to Dutch Creole: “gradual death, the loss of a language due to gradual shift to the dominant language in language-contact situations” (Campbell & Muntzel 1989: 185). Over time, Dutch Creole became obsolete, because its speakers shifted to English and English Creole (see §2.1.6). All of de Josselin de Jong’s (1926) informants – born between 1841

and 1863 – were bilingual in English and/or English Creole, which was/were their main language(s) of use. De Josselin de Jong (1924: 15–16) confidently states that people from younger generations knew only a few jokingly used words and expressions in Dutch Creole. The fact that all the informants in that study were fully bilingual clearly shows that bilingualism between English and/or English Creole and Dutch Creole on the Virgin Islands established in the first half of the nineteenth century at the latest. The decrease in use of Dutch Creole was already noticed at that time. For example, in 1839, the Moravians adopted English instead of Dutch Creole for their sermons and slightly later abandoned Dutch Creole altogether in their religious services (van Rossem & van der Voort 1996: 32).

Within a gradual death scenario, a language is typically affected by language ATTRITION, characterized as the “gradual transformation and decay of a language in a community undergoing language shift” (Muysken 2008: 143). Although the manifestation of language attrition varies from language to language depending on the contact setting and the language’s features, some specific patterns have been attested. Language attrition may affect syntax in causing overgeneralization of patterns, and loss of grammatical devices and syntactic resources (Muysken 2008: 144). Overgeneralization is addressed by Andersen (1982), who predicts that SEMI-SPEAKERS “will preserve and overuse syntactic constructions that more transparently reflect the underlying semantic and syntactic relations” (p. 99).

Similarly, Elordui (2003: 16–19) finds that less fluent speakers of Basque overgeneralize existing structures in cases where more fluent speakers would not use them. Similar effects are also attested in heritage language speakers, where less fluent (also more insecure) speakers have been found to prefer overt or more explicit forms (for example, Polinsky 2006: 244) to increase the likelihood of their message coming through properly. In the heritage language literature this is referred to as the EXPLICITNESS HYPOTHESIS (for example, Aalberse & Muysken 2013: 16). On a related but different note, Meyerhoff & Walker (2007) find that speakers who moved outside of their language community for a prolonged period used zero copulas less frequently, but the linguistic constraints had hardly altered.

Now, the question needs to be addressed how fluent de Josselin de Jong’s informants were. Semispeakers speak the language “with varying degrees of less than full fluency, and their grammar (and usually also their phonology) is markedly aberrant in terms of the fluent speaker norm” (Dorian 1981: 107). In the case of twentieth-century Dutch Creole it is not a priori clear who are the most fluent speakers and who represent the semispeakers. The last speaker of Dutch Creole, Mrs. Alice Stevens, has been shown to be a fluent speaker of Dutch Creole (Sabino 1990: 65–66; 1994: 500–501). Although there is hardly any background information available on de

Josselin de Jong's informants, they are described as faithful to Dutch Creole despite the fact that English and/or English/Creole was or had become their dominant language (de Josselin de Jong 1924: 16). Guirty (1989: 6, cited in Sabino 2012: 72), born in 1906 on St. Thomas, confirms that "there was a fair number of men and women who spoke Dutch Creole..." in the 1920s. Thus, there must have been Dutch Creole-speaking networks in the rural areas of both St. Thomas and St. John, giving de Josselin de Jong's informants an opportunity to speak the language with their contemporaries, thereby retaining fluency.

Nevertheless, King (1989) has shown that fully fluent speakers of a dying language may exhibit in their speech signs of language obsolescence. This is also true for de Josselin de Jong's informants. For example, LEXICAL FADING – the loss of lexical items that may result in the disappearance of phonological contrasts – strongly decreased the occurrence of certain phonological minimal pairs to such an extent that some minimal pairs were no longer attested within the speech of one individual, but only at the level of the community (Sabino 1994: 520). Furthermore, BORROWING of lexical items and CALQUING of phrases and grammatical and lexical constructions was frequent, although not overwhelming.⁵⁷ What is particularly interesting is that occasionally, even functional items such as pronouns were borrowed (English *he* would be used instead of Dutch Creole *am*). In *mi sa bidraag miself leik a gentleman* 'I will behave like a gentleman', the English noun phrase containing the English article *a* instead of Dutch Creole *een* may be a case of code switching. At the same time, the last fluent speakers preserved Dutch Creole phonology (Sabino 1990). Thus, though certain signs of language death are clearly observable in twentieth-century Dutch Creole, the language does not seem to have been strongly affected.

The unmarked verb is associated with the expression of perfective aspect in Caribbean English-lexifier Creoles (Winford 1993b: 38), and alternates with ANTERIOR (markers of relative time reference) markers in Caribbean creoles in general (Holm 1988: 149). By contrast, the picture seems to be rather complicated in Dutch-lexifier creoles and Papiamentu, a creole spoken in a Dutch colony. Past perfective situations are described with the past perfective marker *a* in Papiamentu (for example, Maurer 1988: 107ff) and with the perfective marker *-tE* in moribund Berbice Dutch (Kouwenberg 1994: 62). While past perfective situations are occasionally described without *-tE* (Kouwenberg 1994: 67), the past marker *wa* "cannot appear with

⁵⁷ It has rightly been pointed out that borrowing is not necessarily a consequence nor an indication of language death, because it occurs in both, viable and dying languages (Thomason 2001: 229; see also Campbell & Muntzel 1989: 195ff). Still, gradual language death typically goes together with (heavy) borrowing, because of the speakers' bilingualism and the increasing dominance of the competing language.

a perfective verb form unless to create an Anterior” (Kouwenberg 1994: 65), and as such seems generally restricted to past imperfective situations. Kouwenberg (1994: 66) reports zero pasts to occur in the “foreground,” which is here the same as the complicated action section of a narrative. However, this situation is not straightforwardly comparable to the Dutch Creole situation, because one may wonder whether *wa* may actually occur in the foreground in the absence of perfective *-tE*, or whether a zero past in the CA section is, in fact, a zero perfective. This description of Berbice Dutch leads one to conclude that zero imperfective pasts are rare, while it is unknown whether zero perfective pasts are less frequent in Berbice Dutch than in Dutch Creole.

In the case of Papiamentu, contrary to more formal registers, colloquial, conservative Papiamentu seems to make much use of zero pasts (Andersen 1990: 78ff). Unfortunately, Andersen 1990 does not include any counts, so it is unknown how the use of zero pasts is actually distributed in Papiamentu. Overall Andersen’s examples suggest that zero pasts mainly occur with past imperfective predicates (for example, those containing imperfective *ta*) and past statives. Thus, in Papiamentu zero past seems to be in variation with the past imperfective marker *tabata* rather than with the past perfective marker *a*. A variation analysis of colloquial Papiamentu is required to see whether this is in fact the case.⁵⁸

More formal varieties of Papiamentu are implicitly asserted to contain few if any zero pasts, although this is attributed to influence of Spanish, Dutch, or English through multilingual Papiamentu speakers (Andersen 1990: 68) receiving school education in Dutch (Andersen 1990: 91, note 3). Thus, Berbice Dutch and Papiamentu differ from Dutch Creole in having an overt (past) perfective marker. Conservative Papiamentu seems to be similar to Dutch Creole in using zero pasts most frequently in past imperfective situations, while Berbice Dutch seems to allow only overt imperfective pasts. Like Afrikaans, Berbice Dutch has been said to have lower overall rates of overt past time reference than Dutch Creole (Bruyn & Veenstra 1993: 40–41).

The distribution of the various markers (including zero) in predicates with past time reference has not been extensively investigated in Berbice Dutch, Afrikaans, and Papiamentu. Yet the findings so far indicate that although Dutch Creole is a Dutch-lexifier rather than an English-lexifier creole, this alone cannot explain the differences between Dutch Creole and the CECs discussed. This in itself is not surprising, since these Dutch-lexifier creoles and Afrikaans all have a different history of creation and development.

⁵⁸ Maurer (1988: 198ff) suggests that the situation in Papiamentu is even more complicated.

The assumption that in the formative period of Dutch Creole, a perfective marker rather than a past marker emerged (just as in the English-lexifier creoles) is not unreasonable, given the prominence of aspect in the West-African Kwa-languages, assumed to be Dutch Creole's most important substrate languages. The assumption that the perfective marker was associated with the unmarked verb is reasonable, given how the perfective is encoded in the various Kwa-languages: Ewe and Dangme use an unmarked form of the verb for the perfective (Ameka & Kropp Dakubu 2008c: 216), Akan uses lengthening of the final vowel or consonant with or without a change in tone (Osam 2008: 75), while Ga has a tonal feature to mark perfective (Kropp Dakubu 2008: 96–97). Assuming that *(h)a* was associated with absolute past time reference, it is easy to imagine a scenario in which a zero perfective alternating with an overt past becomes reanalyzed as a zero past. The differences between the various creoles might result from the rate at which a (absolute) past tense marker was introduced into the TMA system.

The question is why the unmarked form would be relatively disfavored in past perfective situations. In fact, this is what Winford found in Trinidadian English (1992: 338), too: First, (zero) perfective is also used to mark habituals; second, varieties of the creole closer to the regional standard of English are characterized by an increase in past marking, particularly in perfective contexts, while zero is better preserved in habitual contexts.

This scenario is in part tenable for Bahamian Creole English, too. Hackert (2004: 170) divides her informants into three groups (high, mid, and low) based on linguistic features.⁵⁹ In her study, speakers in the high group (lower middle class) used overt perfective pasts significantly more often (60%) than the speakers in the two lower groups, mid and low: 28% and 18%, respectively. However, they did not use overt habitual pasts significantly more often than the speakers in the mid group (28% versus 26%), and they did not proportionally increase the use of overt habitual pasts compared to the low group (10%; Hackert 2004: 170). Perhaps, this tendency is simply attributable to the fact that perfective past situations are the prototypical past situations (Bybee et al. 1994: 153).

There is yet another possible scenario, probably more in line with the actual attested data. Akan, one of Dutch Creole assumed substrate languages, makes use of a perfective past marker that “cannot encode events that are located prior to the time of speech but which are imperfective” (Osam 2008: 85). Osam's (2008: 84) examples are reproduced below as (20a–c).

⁵⁹ Although this ranking does not really translate into a social ranking at the individual level, all speakers in the high group are from the highest social class and the speakers in the low group are from the low social class (Hackert 2004: 218).

- (20) a. *Kofi ré-dzìdzí.*
 Kofi PROG-eat
 ‘Kofi is eating.’
- b. *Kofi dzìdzí-ì.*
 Kofi eat-PFV.PST
 ‘Kofi ate.’
- c. **Kofi rè-dzìdzí-ì.*
 Kofi PROG-eat-PFV.PST
 ‘Kofi was eating.’

If Dutch Creole (*h*)*a* was associated for native Akan speakers with their perfective past marker, perfective situations were likely to have been the most natural context for Dutch Creole (*h*)*a* from the start, while past imperfective situations were initially unmarked. At some point, Dutch Creole (*h*)*a* developed into a true absolute past marker, but the preference for its use in perfective situations can possibly reflect an old distributional pattern attributable to Akan substrate influence. Sankoff (1991[1990]) states that “[v]erbs occurring with no tense markers [...] constitute the historical residue of an earlier stage of the languages in which tense marking of the superstrate languages had not been transmitted and the creole markers had not yet evolved” (1990: 295). In this scenario, this would account for the occasional use of zero pasts in perfective situations.

The question of how Berbice Dutch and Papiamentu unmarked verbs are used to convey absolute past time reference is subject for further research. The twentieth-century situation suggests that unmarked pasts were probably never as predominant in Dutch Creole, Berbice Dutch, and Papiamentu, as they were/are in the CECs. This might be because all three have an absolute tense system, while Afrikaans – the only Dutch variety discussed in this paper, which has an absolute tense system and is not a creole – is said to have high rates of zero pasts as well (Donaldson 1993: 228–230).⁶⁰ A quantitative variation analysis of the relevant data from these languages would yield more concrete results and enable to draw a more precise picture of how the zero past in these languages relates to the Dutch Creole zero past. At least in the case of Dutch Creole, one can suppose that Akan, as a substrate, influenced the marking of past time reference. Thus, it would be premature to conclude that the high frequency of occurrence of overt pasts in Dutch Creole is due to language obsolescence.

⁶⁰ An anonymous reviewer mentioned that Ian Robertson’s (p.c., 8 August 2013) impression was that Skepi Dutch (another Dutch-lexified creole) behaves like (English) Guyanese creole, which also seems to have high rates of overt pasts.

3.6. Conclusion

This paper has shown that the expression of past time reference in Dutch Creole differs crucially from that in other creole languages. Whereas Caribbean English creoles typically use zero pasts, twentieth-century Dutch Creole shows a strong preference for overt pasts. The different past marking behavior found in different narrative sections is probably due to the functional similarities between specific aspectual types. Perfective clauses, which constitute the majority of narrative clauses, contain the highest number of overt pasts, while progressive and habitual clauses contain zero pasts significantly more often. Low rates of zero pasts in imperfective clauses in Caribbean English-lexifier creoles have been attributed to an inherent semantic feature of imperfective situations that makes it less necessary for them to be overtly marked for past time reference (for example, Winford 1993b: 36; Hackert 2004: 171). Also, this universal feature may have played a role in the distributional patterns of twentieth-century Dutch Creole (*ha*), and the substrate influence of the Akan past perfective is also a likely source.

The high overall rate of overt pasts makes Dutch Creole differ considerably from Caribbean English-lexifier creoles. However, Berbice Dutch, another Dutch-lexifier creole, and Papiamentu also seem to have high rates of overt pasts. These three creoles differ from the Caribbean English-lexifier creoles in having an absolute, rather than a relative time reference system. Despite this similarity, there are also differences between the TMA categories of these three creoles, which may affect the use of zero pasts. A quantitative investigation of the use of zero pasts in Berbice Dutch, colloquial Papiamentu, and other creoles with an absolute time reference system, and their relation to relevant substrate categories would help understand the distributional patterns of zero pasts.

CHAPTER 4. CHANGE OR VARIATION IN HISTORICAL DATA: A CASE STUDY OF THE VIRGIN ISLANDS DUTCH CREOLE IMPERFECTIVE AND PROSPECTIVE ASPECT MARKERS

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4.1. Introduction

Linguists studying historical data are mostly interested in the spoken language of historical time periods. As speech recordings are a relatively recent phenomenon, historical data are typically written sources. Since “a written record of a speech event stands like a filter between the words as spoken and the analyst”, it is the “primary task” of the analyst to “remove the filter” (Schneider 2003: 67). This means that an assessment needs to be made of how far the written record is removed from the actual spoken language and by what layers the speech variant is obscured. This is particularly vital in the study of missionary sources, where the filter separating the written from the spoken language consists of multiple layers.

Historical missionary sources are generally consulted in those cases where they constitute the main source of data from that period. This is the case for Virgin Islands Dutch Creole (Dutch Creole), the extinct Dutch-lexifier creole language of the current US Virgin Islands, where the missionary data are the main source of eighteenth century data. A reconstruction is made even more complex by the existence of various language varieties, representing different speech communities.

In this paper I investigate the use of imperfective and prospective aspect markers in all Dutch Creole sources available, ranging from the eighteenth to the twentieth century. Dutch Creole expresses tense, modality, and aspect (TMA) through preverbal particles. In the eighteenth century data, imperfective aspect may be expressed through preverbal *le*:

- (1) *Wa goed jender le seek?*
what 2PL IPFV seek
‘What are you looking for?’
(Böhner nd.a: 25)

By contrast, the nineteenth and twentieth century sources only contain preverbal *lo*:

- (2) *Sen a lo skrew*
 3PL PST IPFV shout
 ‘They were shouting.’
 (Magens 1883: 131)

I will discuss four documented alternations, either in form or function, involving these two items, where it is not clear whether we are dealing with either the outcome of a linguistic change or a change in progress, or a case of (stable) inherent variation. The documentation of these items can only be significant for our understanding of the evolution of the language, if they can be correctly interpreted in this respect. By discussing the background of the authors of the relevant sources, the audience design, and the speech community that the source is meant to reflect, I will evaluate for each alternation the extent to which we can ascertain whether we are dealing with change or not.

The paper is built up as follows. First, I will discuss the framework within which I will try to determine whether we are dealing with language change or inherent variation in §4.2. §4.3 discusses the socio-historical background of Dutch Creole, its varieties, and the available sources consulted. In §4.4, I define my use of the term *imperfective aspect*. §4.5 and §4.6 concern the use of *le* and *lo* respectively in the eighteenth century data. In §4.5.3 and §4.6.3, I evaluate whether we are dealing with language change or not. §4.7 addresses imperfective and prospective *lo* in the nineteenth and twentieth century data and §4.8 the prospective construction *lo lo* documented in nineteenth/twentieth century data. The paper ends with the conclusion in §4.9.

4.2. Language change versus sociolinguistic variation

The main issue of this paper is whether variation in the data represents true variation or language change. The framework for doing so will be Weinreich et al.’s (1968) discussion of the relationship between language change and sociolinguistic variation. It was part of their goal to demonstrate that language change should be studied “*in vivo*” and that “the past [...] – no matter how richly recorded and ingeniously studied – can never replace the present as a laboratory for the linguist” (Weinreich et al. 1968: 164). However, historical data may provide indispensable clues for the evolution of language when combined with the insights about the mechanisms of language change studied in the present. Accordingly, this paper will not attempt to contribute to the study of the mechanisms of language change, but instead attempt to distinguish it from sociolinguistic variation.

Essential to Weinreich et al.’s model is the “multilayer conception of

language” (1968: 164): language is a system consisting of multiple styles, which (1) “offer alternative means of saying *the same thing*”; and (2) “are jointly available to all (adult) members of the speech community” (1968: 159). Weinreich et al. point out how “[a]ny pair of dialects can be brought under the heading of a single *diasystem* [but that] it is only when a pair of dialects are jointly available to a group that switches back and forth between them – even if some members of the group only *hear* one of the styles and never speak it – that the multilayer formulation is relevant to an understanding of language change” (1968: 163). The “concept of style switching [is] in principle a durative and recurrent phenomenon” (1968: 164).

There are four problems central to language change:

(i) *the transition problem*: “the transfer of features from one speaker to another appears to take place through the medium of bidialectal speakers, or more generally, speakers with heterogeneous systems characterized by orderly differentiation” (1968: 184);

(ii) *the embedding problem*:

(a) embedding in the linguistic structure: “The linguistic change itself is rarely a movement of one entire system into another, [but instead] a limited set of variables in one system shift their modal values gradually from one pole to another” (1968: 185).

(b) embedding in the social structure: “In the development of language change, we find linguistic structures embedded unevenly in the social structure; and in the earliest and latest stages of a change, there may be very little correlation with social factors. Thus it is not so much the task of the linguist to demonstrate the social motivation of a change as to determine the degree of social correlation which exists, and show how it bears upon the abstract linguistic system” (1968: 185).

(iii) *the evaluation problem*: “The theory of language change must establish empirically the subjective correlates of the several layers and variables in a heterogeneous structure. Such subjective correlates of evaluations cannot be deduced from the place of the variables within the linguistic structure” (1968: 186).

(iv) *the actuation problem*: “It is suggested that a linguistic change begins when one of the many features characteristic of speech variation spreads throughout a specific subgroup of the speech community. This linguistic feature then assumes a certain social significance – symbolizing the social values associated with that group (cf. Sturtevant 1947: 81ff.). Because the linguistic change is embedded in the linguistic structure, it is gradually generalized to other elements of the system. Such generalization is far from instantaneous, and change in the social structure of the community normally intervenes before the process is completed. New groups enter the speech

community and reinterpret the on-going linguistic change in such a way that one of the secondary changes becomes primary” (1968: 186–187).

4.3. Dutch Creole, its sources and varieties

4.3.1. Varieties of Dutch Creole

As discussed in §2.2.1, Dutch Creole was not only spoken by people of African descent, but also by people of European descent born in the Danish West Indies. In this section, I will discuss some eighteenth century language attitude reports on these different varieties. The hope is that these may reveal what group of Dutch Creole speakers the missionaries were most familiar with and most oriented towards. Oldendorp, the Moravian missionary who visited the Danish West Indies in 1767 and 1768 to write a history of the Moravian mission there (see §2.2.4), provides a number of evaluative comments in his manuscript (published in 2000).⁶¹ In one comment, he praises the Dutch Creole speakers of European descent (the EDC speakers), “the white creoles” for their more refined and elegant way of expressing themselves:

There are people who do not speak any other language [than the creole language] properly. However, the white creoles speak this language more finely than the enslaved and have their own elegant expressions and way of speaking.⁶²
(Oldendorp 2000: 358, translation mine)

Yet, despite Oldendorp’s positive evaluation of the EDC speakers, he also describes them as less *pure* speakers of Dutch Creole:

They often use Dutch words instead of creole ones among each other, to make their language a bit more different from that of the black creoles. Therefore, one learns creole more purely from the blacks than from the whites, since many of them use unnecessary foreign words, out of habit or on purpose.⁶³
(Oldendorp 2000: 710, translation mine)

⁶¹ The question is of course whose language attitudes they represent: Oldendorp’s own or the missionaries’ working in the Danish West Indies that he spoke to.

⁶² “Man trifft welche an, die keine andere recht können. Überhaupt reden aber die blanken Criolen diese Sprache feiner als die Neger und haben ihre eigene zierlichere Ausdrücke und Redensarten.”

⁶³ “Sie [die blanken Criolen] brauchen auch oft untereinander holländische Wörter anstatt criolischer, um ihre von der Negersprache in etwas zu entfernen. Man lernet daher das Criolische eher recht rein von den Schwarzen als von den Blanken, weil viele von diesen aus Gewohnheit oder mit Fleiß unnötige fremde Wörter hineinmengen.”

Remarkably, as follows from the following fragment, Oldendorp does not even consider all ADC speakers as speakers of *pure* creole :

Some [blacks] speak pure creole, but very fast and according to their heavy Guinean pronunciation. They pronounce most words only half and so indistinctly that one does not know what they want to say. This is the reason that a [white] person who knows creole well does not understand each black [creole speaker]: one needs a long training and even then sometimes an interpreter is required to explain the creole that is mixed with Guinean.⁶⁴ (Oldendorp 2000: 711–712, translation Stein 1995: 45)

Thus, we find that the speaker that we would want to typify as the most representative speaker of eighteenth century ADC is said to mix in African elements. Moreover, even when the ADC speakers speak this so-called *pure* creole, their pronunciation makes it hard for them to be understood by those of European descent. At the same time, we find that the speakers that we want to characterize as speakers of EDC are said to speak a less *pure* creole and mix in Dutch elements. Thus, we are forced to conclude that the pure creole that Oldendorp refers to is neither entirely ADC nor EDC. ADC is supposedly primarily different from this variety in its pronunciation, EDC in the addition of Dutch or other foreign words and constructions. Obviously, if the average ADC speaker's pronunciation is so difficult to decipher as Oldendorp sketches, then Oldendorp cannot have been able to truly verify the extent to which ADC was identical to or different from the "pure creole".

This leads us to another conclusion: there must have been ADC speakers that Oldendorp (and the other missionaries) was able to understand, speaking a variety that was not obscured by a strong so-called "African" pronunciation. Oldendorp was one of the Moravian brethren and was assigned the task to document the history of the Moravian mission in the Danish West Indies. Therefore, he was much involved with the black community of converts to the Moravian mission. Sensbach (2005: 236) writes: "he interviewed dozens of African and Creole workers, many of whom were original converts from the 1730s." Among these original converts were enslaved people who had learnt "to read and write in Dutch" (Stein 1995: 47). As Sabino (2012: 85) concludes: "Afro-Caribbean spiritual workers were positively oriented to Western culture, they used their most

⁶⁴ "Manche reden rein criolisch, aber ungemein geschwind und nach ihrer schweren guineischen Aussprache. Die meisten Wörter behalten sie halb im Munde oder bringen sie so undeutlich heraus, daß man nicht weiß, was es ein soll. Es ist hieraus begreiflich, daß jemand der gut criolisch kann, deswegen nicht einen jeden Schwarzen recht verstehe, daß dazu eine lange Übung gehöre und dennoch bisweilen ein Dolmetscher zu Hülfe gerufen werden müsse, der das mit Guineischem vermischte Criolische erkläre."

Germanic variants to display that orientation, to continue their own learning, and to improve the missionaries' comprehension." We may conclude that these spiritual workers had created a style with a pronunciation that was easy to understand for the missionaries, that was limited in if not deprived of words or constructions incomprehensible to the missionaries, and that may have adopted some European structures and vocabulary introduced by the missionaries. Like Stein (1995: 46), who interprets Oldendorp's *pure* creole as referring to "a creole without any evident African influence, which therefore was easy to understand for the Europeans", I assume that Oldendorp's *pure* creole refers to the language of this community of converted blacks. Thus, I assume that Oldendorp's grammar and language samples are a description of this adjusted variety of ADC and of a variety of EDC that does not deviate too much from this.

J.M. Magens was born on St. Thomas in 1715 "into a relatively wealthy family" (Dyhr 2001, cited in Magens 2009: 15). Magens wrote a grammar of Dutch Creole in 1765, which was published in Copenhagen in 1770 (Williams 1984: 55). In §2.2.5, I discussed more background on Magens's personal life, but also on this grammar and particularly the dialogues that it contains. As discussed, the grammar, which contains some proverbs and dialogues, was written for missionaries of the Danish mission studying Dutch Creole (Hesseling 1905: 36). The dialogues "were not intended as literal conversations", but "were keyed specifically as pedagogical idealizations to be framed as *practice*" (Williams 1984: 58). The terms of address used in Magens's dialogues among the enslaved differ from those used for other participants (Williams 1984). From a grammatical point of view, however, there is no apparent difference in language use.

4.3.2. The Dutch Creole sources

As discussed in §2.2.2, most of the primary Dutch Creole sources consulted have been digitalized and collected in the online accessible NEHOL Database (<http://corpus1.mpi.nl>). This section will discuss the sources used for the current study.

The first attestation of *le* is in a letter from 1752 (Table 4.1). This is relatively late, as there is a corpus of letters starting from 1738 in which past marker (*h*)*a* does occur (see §2.2.3). The late appearance of TMA markers has been suggested to be the result of the authors unfamiliarity with Dutch Creole as a written language, their experimenting with the target language of the letters (Dutch or Dutch Creole) and audience design (Stein 1985), and getting acquainted with the non-European elements (Stein 1995: 47–49). This interpretation – which means that aspect marker *le* was already in use before its first written attestation in 1752 – is supported by the fact that other creole features, such as bare plurals and lack of inflectional plural marking,

also increase significantly in frequency in the letters after 1750 (Stein 1995: 50).

Table 4.1: The use of *le* in the eighteenth century letters

	Letters by year of writing
Preverbal <i>le</i> absent	1738; 1739a;b;c; 1741; 1753 (Catarina)
Preverbal <i>le</i> present	1752; 1753 (Cornelius); 1760; 1762

The missionaries' first written records of Dutch Creole date from roughly the same period as the period when the TMA markers start appearing in the letters (Table 4.2).

Table 4.2: The use of *le/lo* in the Moravian missionary data

Year	Code	Genre	Author	<i>le/lo</i>
1754	3.3.3	Christmas song	Isles	<i>le</i>
1755	3.3.4	hymns	unknown	<i>le</i>
1765	HERRN65	hymn book	unknown	<i>le</i>
1767	3.3.1.7	church retrospective	unknown	<i>le</i>
ca. 1768	OLDGESPR	dialogues	Oldendorp	<i>le</i>
1772	3.3.6	religious essay	Schmidt (Loretz)	-
1774	AUER74	letter	Auerbach	-
[<1780]	3.2.1	Gospel Harmony translation	Böhner	<i>le</i>
[<1780]	3.2.2	GH translation	Böhner	<i>le</i>
1780	3.2.6	Idea Fidei Fratrum translation	Böhner	<i>le</i>
[<1780?]	3.2.4	NT Epistles translation + Revelation of John	Böhner	<i>le</i>
[<1785]	3.2.5	OT translation	Böhner	<i>le</i>
1784	AUER84	2 catechisms	Auerbach	-
n.d.	3.3.1.3	OT Genesis translation	unknown	-
[< 1792]	3.2.3.1	GH translation	[Auerbach]	<i>le</i>
n.d.	3.2.3.2	GH translation	unknown	-
1796	3.3.1.5A	Creole sermon	unknown	-
1797	3.3.1.5B	Creole sermon	unknown	-
1797	3.3.1.5C	Creole sermon	Reichels	<i>le</i>
1802	Grammatik conversation	Grammar with dialogues	unknown	<i>lo</i>

Although *le* is quite frequently used throughout the various sources, it is remarkable that some late sources lack *le* and use Ø instead. The absence of *le* in the 1795 Old Testament translation could be due to sample size (around 4,500 words). However, in the case of the undated and anonymous New Testament translation with code 3.2.3.2 (see Table 4.2), this cannot be the reason. The parallel translation 3.2.3.1 contains 155 occurrences of *le* out of about 25,000 words, while 3.2.3.2 contains no occurrences of *le* in about 20,000 words. See §2.2.4 for more information on the data sources listed in Table 4.2 and their authors.

While all earlier sources use either *le* or do not use an imperfective marker at all, the Moravian grammar from 1802 uses *lo*. The grammar itself comments that it used to be “common in speech to use *le* in the present”, but that “nowadays *lo* is more common in speech” (Hesseling 1905: 104–105).⁶⁵ The 1802 grammar takes some dialogues from Oldendorp (nd.a) and replaces every occurrence of *le* in the original by *lo*.⁶⁶

The Danish Lutheran missionaries’ sources (see Table 4.3) all contain *le*, with only one exception. Magens’s (1770) grammar with dialogues, our only specific source of colonists’ Dutch Creole, contains both *le* and *lo*, although not in functional variation (see §4.5.1 and §4.6.1).

Table 4.3: The use of *le/lo* in the Danish Lutheran missionary data

Year	Code	Source	Author	<i>le/lo</i>
1770	Kingo.ABB	primer	Kingo	<i>le</i>
1770	Wold.ABB	primer	Wold	<i>le</i>
1770	PSBUK70	hymn book	Wold	<i>le</i>
1781	PONTOPPI	NT translation	J.M. Magens	<i>le</i>
		Evangelium		
1798	LUND98	religious educational writing	Lund	<i>le</i>
1800	Barby.ABB	primer	unknown	-
1823	PRAET23	hymn book	unknown	<i>le</i>

Table 4.4 lists all sources containing ADC. They are practically all of considerably later date than the colonists’ and missionary data. This complicates a direct comparison between ADC and EDC. All sources in Table 4.4 contain *lo* without a trace of *le* whatsoever.

⁶⁵ “es war vor mehreren Jahren sehr gewöhnlich dass man, wenn man im Präsens redete, *le* vorsetzte [...]. Heut zu Tage aber findet man dieses *le* in Schriften äusserst selten (ausser in den alten) und im Reden ist nun das *lo* mehr gebräuchlich als *le*.”

⁶⁶ I am grateful to Cefas van Rossem (p.c.) for sharing this observation with me.

Table 4.4: The use of *le/lo* in the African Dutch Creole data

Year	Code	Source description	Author	<i>le/lo</i>
1788	-	rebel song	Schmidt	<i>lo</i>
1871	-	language sample	Van Name	<i>lo</i>
1881	PONTOPPI	proverbs, dialogues	Pontoppidan	<i>lo</i>
1883	AMAGENS	letter to Schuchardt	A. Magens	<i>lo</i>
1904	Greider	Four sample sentences	Greider	-
1926	dJdJ texts	103 (primarily) folk narratives	de Josselin de Jong	<i>lo</i>
1936	Nelson	words, sentences	Nelson	<i>lo</i>
1977	-	dissertation containing some newly recorded example sentences	Adams Graves	<i>lo</i>
1980s	-	recordings of the last speaker made in 1980s	Sprauve	<i>lo</i>
1990	-	dissertation containing written language samples of recordings of the last speaker made in 1980s	Sabino	<i>lo</i>
2012	-	monograph with audio samples of recordings of the last speaker	Sabino	<i>lo</i>

Additional information of the informants of the sources in Table 4.4 is provided in §2.2.6. Pontoppidan's (1881) informants are unknown, except that they were from St. Thomas (see §2.2.6.2). Magens (1883) has written his letter with the help of a Dutch Creole speaking girl (see §2.2.6.3). De Josselin de Jong (1926) has consulted nine informants (de Josselin de Jong 1924: 69, see §2.2.6.4). All these speakers produced preverbal *lo*, with the exception of de Josselin de Jong's informant R. George, but this may be due to the fact that his contribution was so small. Nelson has collected some words and phrases from 7 speakers from St. Thomas, St. John, and St. Croix during a holiday in 1936 (see §2.2.6.5). Preverbal *lo* occurs in the contributions of four of these, all women (see Table 4.5).

Table 4.5: Nelson's (1936) informants who produced preverbal *lo*

Speaker	From	N preverbal <i>lo</i>
V. Musinton	Christiansted, St. croix	2
H. Francis	St. Croix	5
I. Sylvester	St. John	4
R. Francis	St. Thomas	1

4.4. Imperfective aspect

Most functions of the Dutch Creole aspect markers *le* and *lo* can be characterized as expressing *imperfective aspect*, which has been defined as “viewing a situation from within” (Comrie 1976: 24). Thus, no reference is made to the onset or the termination of the situation. In (3), the progressive form of the verb *walk* does not make any assertion about the start and the end of the situation:

- (3) He was walking on the beach.

More specific types of imperfective aspect can be distinguished depending on the situation type and its genericity. With respect to genericity, we can distinguish between episodic sentences which refer to a specific, individual occurrence of a situation (Krifka et al. 1995: 3), and characteristic or generic sentences, which “report a kind of *general property*” and do not refer to “specific episodes or isolated facts” (Krifka et al. 1995: 2). When the imperfective situation is an episodic non-stative situation, we are dealing with a progressive situation, as in (3). In the case of a non-stative characteristic imperfective situation, we speak of a habitual situation (Krifka et al. 1995: 17):

- (4) On Wednesdays he walks to the office.

Stative situations may also be episodic, i.e., of limited duration as in (5), or characteristic, as in (6).

- (5) The street was wet after the shower.
(6) New streets are paved with asphalt.

4.5. *Le* in the eighteenth century data

4.5.1. *Le* as used in the data

Throughout all sources, *le* predominantly occurs with present imperfective situations (see Table 4.6). Both in Magens’s 1770 dialogues and in the missionary sources, *le* occurs in progressive and habitual sentences, and with stative situations:

- (7) progressive
 Wat Ju Vrou bin? Hem *le* due an sie Kleer.
 where 2SG woman be 3SG IPFV put on 3S.POSS clothes
 ‘Where is your wife? She is putting on her clothes.’
 (Magens 1770: 75)

- (8) habitual
Fordiemaek die Heer hem sa straf sender die le
 because DET Lord 3SG IRR punish 3PL REL IPFV
gebryk sie Naem voor soso.
 use 3S.POSS name for nothing
 ‘Because the Lord will punish those who use His name in vain.’
 (Wold 1770: 8)
- (9) episodic stative
 a. *Hem ka hoppo?*
 3SG PRF get.up
 b. *Neen, hem le lej na bobo die Bedde.*
 no 3SG IPFV lie on.top.of DET bed
 ‘Is he up already? No, he is lying in his bed.’
 (Magens 1770: 52)
- (10) characteristic stative
Mi le gloof na Jesus Christus sie eenigst soon,
 1SG IPFV believe LOC Jesus Christ 3S.POSS only son
ons Heer.
 1PL Lord
 ‘I believe in Jesus Christ, His only Son, our Lord.’
 (Wold 1770: 6)
- (11) *En die alles a geskied, dat die a kom*
 and 3 all PST happen that 3 PST become
voldaan wat a ka see door die Prophet, die
 fulfilled what PST PRF say through DET prophet REL
le / a see [...]
 IPFV PST say
 ‘And that all happened, so that it was fulfilled what had been said by
 the prophet who said [...]’
 (Böhner nd.a: 189)

Given the predominance of the present imperfective meaning, illustrated in (7)–(10), it is remarkable that *le* seems to be used in (11) in a past perfective situation. In (11), Böhner gives the reader the choice between *le* and past marker *a*. If one interprets (11) as such that *le* would be a present interpretation and *a* a past interpretation, then *le* occurs exclusively in present contexts in the missionary data. A present interpretation is possible, because the sentence is followed by a quote containing the prophecy.

The past example of *le* in Magens (1770), given below as (12c), also seems to refer to a perfective situation. The focus is on the fact that the situation happened as a whole, rather than that there is reference to a point in the past when the situation was ongoing. This is underlined by the use of the past time reference marker *ha* in (12a) and (12d) without *le*.

- (12) a. *Jender ha speel?*
 2PL PST play
 ‘Did you play?’
 b. *Ju, mie ookal.*
 yes 1SG too
 ‘Yes, me too.’
 c. *Dat wat Speel Jender ha le speel?*
 FOC what game 2PL PST IPFV play
 ‘What game did you play?’
 d. *Ons ha speel drie Kaert.*
 1PL PST play three.card
 ‘We played *three cards*.’
 (Magens 1770: 55)

Le is attested once with an inchoative situation in one of Oldendorp’s (2000) dialogues (see 13). However, the *inchoative* or *change-of-state* interpretation in (13) may be derived from the context.

- (13) *Wanneer mi vraag die Man, em sal gie mi een*
 when 1SG ask DET man 3SG IRR give 1SG INDF
stuver: em le quaat, em le see, mi no ha.
 penny 3SG IPFV be.angry 3SG IPFV say 1SG NEG have
 ‘When I ask this man, whether he will give me some money, he gets
 angry, he says: “I don’t have any.”’
 (Oldendorp nd.b in Stein 2010: 249)

There are also cases where *le* is used in predictions (future time reference), as illustrated in (14).

- (14) *Mi le weet dat Messias le kom welk ben genamd*
 1SG IPFV know that Messiah IPFV come REL be named
Christus.
 Christ
 ‘I know that Messiah is coming, who is named Christ.’
 (Böhner nd.a: 33)

Table 4.6: The functions of *le* in a representative selection of eighteenth century sources

	Letters (1752– 1762)		Magens (1770)		Oldendorp (2000) [1768]		Danish primer (Wold 1770)		Gospel Harmony (3.2.1. & 3.2.2)	
	N	%	N	%	N	%	N	%	N	%
imperfective ^a	7	100	31	76	7	87.5	22	100	666	97
perfective ^b	-	-	-	-	-	-	-	-	9	1
past ^c	-	-	1	2	-	-	-	-	-	-
prediction	-	-	9	22	-	-	-	-	7	1
inchoative	-	-	-	-	1	12.5	-	-	-	-
irrealis	-	-	-	-	-	-	-	-	1	0
ambiguous	-	-	-	-	-	-	-	-	8	1
Total	7	100	41	100	8	100	22	100	691	100

a = with present time reference

b = with past time reference

c = aspectual interpretation is indeterminate

4.5.2. *Le* as described in eighteenth century sources

In his 1770 grammar, Magens mentions that “in Creole it is often common to put the word *le* in front of *verbs* in the *present tense*” (italics in original) (Magens 2009: 33). Oldendorp is more specific and mentions that “[*le*] is mostly used because of its euphony, because it makes the speech more fluent. It is supposed to indicate that something already occurs and is in development, like *mi le kom*, *mi le skriev*, I am coming, I am writing”⁶⁷ (Oldendorp 2000: 697). Based on the actual attestations just discussed, we may interpret this as saying that *le* was an imperfective present. This is corroborated by Oldendorp’s follow-up remark:

But people are not so particular about it. Many people introduce⁶⁸ *le* into the simple past, when they ask, in the following manner: *joe a le bring die?* did you bring it? *em a le slaa joe?* did he hit you? *jender a le skoon die?* did you clean it? And when one replies, he sometimes talks in the same way and says

⁶⁷ “Um des Wohlklangs willen bedient man sich seiner am meisten, weil es die Rede fließender macht. Eigentlich soll es anzeigen, daß etwas schon geschieht und im Werden ist, als *mi le kom*, *mi le skriev*, ich komme schon, ich bin im Schreiben.”

⁶⁸ I have chosen the word ‘introduce’ to translate the original German word *flicken* ‘patch’ (see the following footnote). Peter Stein (p.c.) points out that ‘introduce’ is too neutral compared to *flicken*, which rather means ‘restore’ or ‘improve’. However, it is hard to formulate a grammatical sentence with these words that is close to the original German sentence.

for example: *mi a le bring die* I (have) brought it; *mi a le see* I (have) said; *mi a le loop*; I went.⁶⁹
(Oldendorp 2000: 697).

Magens (2009: 33) also reports how *le* is used in the past with second and third person in a question, and with first person when an answer is given. The main point is the fact that Oldendorp's examples refer to resultative situations:

- (15) a. *Joe a le bring die?*
2SG PST IPFV bring 3
'Did you bring it/Have you brought it?'⁷⁰
(Oldendorp 2000: 697)
- b. *Mi a le bring die.*
1SG PST IPFV bring 3
'I (have) brought it.'⁷¹
(Oldendorp 2000: 697)

With the above formulation, Oldendorp explicitly portrays the past discourse occurrences of *le* as an innovation.

4.5.3. Change or variation?

As discussed in §4.3.1, Oldendorp's grammar is a description of ADC adjusted to the missionaries and a conservative variety of EDC. This means that it may refer to a style of at least two speech communities. Magens (1770) is in the first place most likely a description of a variety of EDC and possibly of ADC speakers frequently in contact with EDC speakers.

Oldendorp's discussion suggests a change, not in form, but in the use of *le*: he implies that the item *le* had been extended from a present imperfective to being used in the past in question and answer contexts, at the latest in the 1760s. Thus we may tentatively label the non-use of *le* in questions and answers with past time reference as archaic and the use of *le* as innovative. Oldendorp's use of "some people" (*manche*) with respect to the use of *le* in

⁶⁹ "aber das wird nicht immer so genau beobachtet. Manche flicken auch das *le* ins **Imperfectum**, wenn sie fragen, auf diese Weise: *joe a le bring die?* hast du es gebracht? *em a le slaa joe?* hat er dich geschlagen? *jender a le skoon die?* habt ihr es rein gemacht? Und wenn einer antwortet, redet er bisweilen ebenso und sagt zum Exempel: *mi a le bring die* ich habs gebracht; *mi a le see* ich sagte; *mi a le loop* ich ging."

⁷⁰ "hast du es gebracht?"

⁷¹ "ich habs gebracht."

questions implies that there were individuals who did not use *le* there. With respect to the use of *le* in answers, Oldendorp's use of "sometimes" (*bisweilen*) implies at the least that people alternated between the use or non-use of *le*.

The distribution of the various uses of *le* over the two groups of assumed users will be forever beyond our reach. However, if our assumption of the target of Oldendorp's language description is correct, then it is obvious that speakers of any ADC style that has been adjusted to European communication partners will tend to conform to EDC or even MDC speakers. The opposite is hardly likely to have been the case. It is true that, as second-language learners, the missionaries must have learnt the language from others. However, as discussed in Stein (1995) and Sabino (2012: 85), MDC seems to have been shaped by the de-Africanized input of their spiritual workers and possibly some EDC speakers.

Let us first look at the basic scenarios for the origin of the item *le*:

- 1) *le* is originally an ADC form transferred into EDC;
- 2) *le* derives from a contact variety of Dutch (suggested in Holm 1986: 248), or from Dutch *leggen* 'lie' directly.

The corpora *Gekaapte Brieven* ('Privateered Letters', van der Sijs 2012) and *Brieven als Buit/Letters as Loot* (van der Wal 2013) contain many seventeenth century letters sent to and from the Caribbean, but no Caribbean contact variety of Dutch seems to be used. *Brieven als Buit* contains three letters with imperfective *leggen* 'lie' plus bare infinitive (i.e., without infinitive marker *te*, cf. English *to*), as in (16) from 1644. Two other letters contain the construction *leggen/liggen* 'lie' with *te*-infinitive. Interestingly, (16) contains a (hypothetical) characteristic sentence indicating that Dutch *leggen* was not restricted to progressive situations. Thus, the Dutch imperfective construction *leggen* 'lie' plus bare infinitive was available in the seventeenth century as a possible source for imperfective *le* in Dutch Creole or a hypothesized contact variety of Dutch.

- (16) *Want ickdencke dat wij daer met malcanderen*
 because I think that we there with each.other
souden legg-en vergae-n.
 would lie-INF perish-INF
 'Because I think that we would be starving there.'
 (brievenalsbuit.inl.nl, HCA 30-644, To Andries Verbrugge)

Whether or not *le* derives from a contact variety of Dutch or from Dutch directly, more important is the question whether it may have ended up in ADC when it was created. Sabino (2012: 193) dismisses Dutch *leggen* 'lie'

as a possible source for an imperfective marker in ADC, because “those enslaved in the colony are far more likely to have been commanded to *go* than *lay* or *lie*.” However, when lexical items grammaticalize, they lose their literal meaning. Thus, there is no reason to assume that colonists would avoid using *leggen* or Dutch Creole *lee* as a marker of imperfective aspect to those they abused as slaves. Moreover, I wonder to what extent enslaved directed speech should be expected to have consisted solely of imperatives. A related issue is whether the form *le* was ever a TMA marker in ADC. Stolz (1986: 243) and Sabino (2012: 193) assume that ADC used only *lo* as its imperfective marker from the beginning. I want to sidestep this discussion now (it will be discussed in §4.6.3), since the data will not give us a definite answer. Instead, I want to focus on the function of the marker used, whatever its phonological form.

The languages involved in the creation of Dutch Creole or its documentation have constructions to express progressive and/or habitual aspect irrespective of time reference (Dutch, (Low) German, Danish; Akan (Osam 2008); Ewe/Gbe (Ameka 2008); Ga (Kropp Dakubu 2008)). Thus, based on predictions of transfer from any of the Dutch Creole creators’ native languages – i.e., *imposition* or *source language agentivity* in Van Coetsem’s (1988: 3) framework – we do not expect the development of a present imperfective in any variety of Dutch Creole. Since the late nineteenth and twentieth century ADC data attest a well-developed tense-independent aspect marking system, we assume that the basic categories of this system have been present in ADC from the beginning. Therefore, whether ADC used the form *le* or *lo*, it must have been a tense-independent imperfective marker.

Yet, in the missionary data we encounter *le* as an obvious present imperfective. Thus, the locus of the innovation of *le* must be primarily EDC. If *le* was not a present imperfective in EDC, but a true imperfective, then the non-imperfective past uses of *le* reported in Magens and Oldendorp are remarkable: we would be witnessing not an extension from present to past, but an aspectual generalization from past imperfective to past. One possible scenario is that imperfective situations marked by *le* in EDC were so much more frequent in the present that the association of (h)a *le* with past imperfective was weak, and over time completely eroded, so that (h)a *le* was reinterpreted as a general past.

The alternative scenario assumes an extension from present to past: Since ADC speakers used their aspectual marker *le/lo* in both past and present, the group of ADC speakers in frequent direct contact with EDC speakers was likely to do this also (perhaps only occasionally) when communicating with the latter. Following the schema of the mechanism of change proposed in Weinreich et al. (1968: 156–157), some EDC speakers may have copied the

use of *(h)a le*, but assigned to it a different interpretation than was intended by the ADC speakers.

What both scenarios have in common is that bare *le* is associated with present imperfective. Since according to Bybee et al. (1994: 126) there is no distinction between a present imperfective and a present, I assume that *le* did not have any aspectual value in eighteenth century EDC (although this may have initially been the case). From this, it logically follows that those speakers would not make an aspectual distinction when using *le* in the past, irrespective of whether the use of *(h)a le* was introduced by contact with ADC speakers or whether it was present as inherent variation in EDC.

To conclude, I assume that the use of *(h)a le* most probably represents a change in EDC (although we do not know whether this was a change from present to past, or a generalization or a bleaching of its aspectual value). The alternative scenario to this proposes that *le* would have been used in EDC in both present and past, perfective, resultative, and imperfective contexts from the beginning. That is either by a specific subgroup or by random individuals from the EDC community. However, it is hard to imagine how this situation would have emerged.

4.6. *Lo* and *loop* in the eighteenth century Dutch Creole data

4.6.1. Eighteenth century *lo* and *loop*: use in the data

The first attestation of *lo* dates from 1788 from a protest song from St. Croix (van Rossem and van der Voort 1996: 224). In this example (17), *lo* expresses intention before the movement verb *lob* ‘go’. The verb repetition is a focus construction with West African roots.

- (17) *Da lob mi lo lob.*
 FOC go 1SG LO go
 ‘I am going.’
 (van Rossem & van der Voort 1996: 224)

The above example is a unique record of eighteenth century ADC, showing that *lo* had already developed as a preverbal marker in the late eighteenth century.

There is a manuscript version, presumably from around 1802 (Hesseling 1905: 45), of an unpublished grammar written by a Moravian missionary. It contains some dialogues from Oldendorp (2000) in which every occurrence of *le* in the original has been replaced by *lo*. Also here, all examples are restricted to the (imperfective) present:

- (18) *Noe, die Klock lo ling.*
 now DET clock IPFV ring
 ‘Now, the bell is ringing.’
 (Hesseling 1905: 183)

Lo is also attested in Magens’s (1770) grammar and dialogues. In the 1760s, the lexical verb *loop* ‘go’, as in (19), was commonly pronounced as /lo/ (Oldendorp 2000: 687).

- (19) *Ons sa loop na die Herberg. for speel Billiar.*
 1PL IRR go LOC DET tavern COMP play billiards
 ‘We will go to the tavern, to play billiards.’
 (Magens 1770: 58)

In (20), *lo* occurs in preverbal position after the complementizer *for* ‘to’. It is virtually without doubt that preverbal *lo* in (20) is identical to preverbal *loop* in (20). The obvious difference between the two is that *loop* in *loop lej neer* can be associated with actual motion, while this is not possible for *lo* in *lo slaep*. The lack of association with actual motion may be a good explanation for why *lo* is differentiated from the lexical motion verb *loop* in the construction *for lo*.

- (20) *Mie ha loop lej neer for lo slaep gue laet gester*
 1SG PST go lie down COMP go sleep very late yesterday
Donker.
 night
 ‘I went to sleep very late yesterday evening.’
 (Magens 1770: 55)

In Magens’s (1770) dialogues, preverbal *loop* ‘go’ is not infrequent. In fact, almost all cases of preverbal *loop* correspond to preverbal *gaan* ‘go’ in Dutch,⁷² as in (21a-b).

- (21) a. *Loop due an Ju klee.*
 go put on 2SG clothes
 ‘Go put on your clothes.’
 (Magens 1770: 72)

⁷² Contrary to Sabino (2012: 194), who, misled by wrong data, erroneously states that Dutch Creole *lo(op) slaep* ‘go to sleep’ does not have an equivalent construction in Dutch. In fact, its literal Dutch translation *gaan slapen* ‘go [to] sleep’ is very frequent.

- b. *Ga je kleren aan-doen.*
 go your clothes on-put.INF
 ‘Go put on your clothes.’

Rather than aspect, it seems that *loop* in (20) and (21a) is a motional verb, a directional. This use of *loop* ‘go’ is very frequent in the twentieth century data. Motional verbs have grammaticalized in the West African substrate languages, such as Akan (Osam 2002), Ga (Kropp Dakubu 2008), and Ewe (Ameka 2008; Ameka & Kropp Dakubu 2008c). In Akan, the motion verbs indicate “a movement towards or away from the speaker, that is required before the action indicated by the verb” (Dolphyne 1988: 95, cited in Osam 2002: 114). In Dutch, basically the same concept is expressed with the motion verbs *gaan* ‘go’, as in (21b), and *komen* ‘come’. Thus, preverbal *loop* is frequent as a motion verb in Magens’s (1770) dialogues, but absent as an aspectual marker.

4.6.2. Eighteenth century *lo* and *loop*: reports of use

The Moravian grammar reports a switch in form (*le* to *lo*) in the documentation. It states that “many years ago it was very common to use *le* before the verb, when talking in the present tense [...]. Nowadays, this *le* is rare in writing (with the exception of old works) and now *lo* is more common in speech than *le*”⁷³ (Anonymous nd.b: 36, cited in Hesseling 1905: 104–105).

In his 1770 grammar, Magens mentions *for lo* to be a gerund construction, giving the following example *for lo vervolg* ‘pursuing’ (Magens 2009: 29). However, this gerund use, which seems to infer simultaneity as gathered from the translation, cannot refer to the purposive use of *for lo slaep* ‘to go and sleep’ in (20). No other eighteenth century occurrences of *for lo* nor of *for loop* have been documented.

4.6.3. Change or variation?

There is consensus that the documented switch from *le* to *lo* is not a phonological change (e.g. Hesseling 1905: 105–106; Stolz 1986: 179), but a change in form (i.e., *lo* is another item than *le*). Thus, *le* is the archaic and *lo* the innovative form at the end of the eighteenth century. We are obviously dealing with language change here, but the question is: among which speakers?

⁷³ “es war vor mehreren Jahren sehr gewöhnlich dass man, wenn man im Präsens redete, *le* vorsetzte [...]. Heut zu Tage aber findet man dieses *le* in Schriften äusserst selten (ausser in den alten) und im Reden ist nun das *lo* mehr gebräuchlich als *le*.”

Some relevant issues for this discussion have already been dealt with in §4.5.3. The possible scenarios for each variety are as follows:

- (22) a. ADC *le* > *lo*
b. ADC *lo*

- (23) a. EDC *le* > *lo*
b. EDC *le*

- (24) MDC *le* > *lo*

We can be certain from the Moravians' grammar that the missionaries switched to *lo* around the turn of the eighteenth century or slightly earlier. Since they were only second-language users, we can also be certain that they will not have initiated this change: it must have been modeled on the language use of others.

The question remains: which speakers? There are two likely possibilities: 1) the language of the spiritual workers; 2) EDC speakers with which they were in contact. The spiritual workers must have ultimately been those most important to the missionaries, as they were the ones that the missionaries were trying to accommodate by using Dutch Creole at all.⁷⁴ Since the Moravian grammar reports that "now *lo* is more common in speech than *le*", we may assume that the spiritual workers were the ones switching to *lo* in their adjusted missionary directed style. As will be discussed in §4.7.1, *lo* marks imperfective aspect in the nineteenth and twentieth century ADC sources, much like *le* does in the eighteenth century missionary and EDC sources. Thus, regardless of whether we assume scenario (22a) or (22b), by the end of the eighteenth century, *lo* can be assumed to have been used in ADC. If the spiritual workers started using *lo* in their missionary directed style, this form originates from ADC.

Now the question becomes as follows: why did the missionaries accept *lo* in their speech towards the end of the eighteenth century, while they did not before? From the viewpoint of scenario (22a), one possibility is that *lo* was not used before, or not as much. I assume the spiritual workers to have been, as the missionaries are likely to have been, conservative in their speech and adoption of new forms. If *lo* was an innovation somewhere in the course of the eighteenth century, then the spiritual workers of that time have likely been reluctant in using this form. If however we assume scenario (22b), then only the following part applies.

⁷⁴ Notwithstanding the fact that, as follows from some of Oldendorp's remarks in §4.3.1 and e.g. Stein (1995), the spiritual workers have had to accommodate their language to that of the missionaries.

The factor that I assume to be crucial in the missionaries' acceptance of *lo* (at least in speech) is a change in the people involved. By the end of the eighteenth century, the most prolific and linguistically involved missionary writers were dead: Johann Böhner died in 1785 (Stein 1986a: 11) and Johann Christoph Auerbach⁷⁵ in 1792 (Het Utrechts Archief). Someone like Böhner was personally involved in the creation of the missionary variant as we know it. Born in 1710 (Het Utrechts Archief), Böhner was 70 years old in 1780, and Auerbach, born in 1726, was 54. It is very unlikely that they would be welcoming a change in the preverbal TMA markers, when they had devoted so much time to acquiring the language in the way they had. Since the grammar is undated and unspecific about when exactly the change began, it is of course possible that the change only became relevant for the missionaries around or sometime after Böhner's death in 1785.

But perhaps more importantly, the change was not only with the missionaries. Oldendorp interviewed many of the "original converts from the 1730s" (Sensbach 2005: 236) during his stay in 1767 and 1768. These original converts, some of whom had learnt to write, must have been equally involved in the creation of the missionary standard, albeit perhaps more indirectly. In any case, they must have been the creators of the standard for the missionary directed speech. Thus, if scenario (22b) is what actually occurred, then these original converts have accepted the use of *le* in their missionary directed speech. They are therefore unlikely to change to *lo* later in their lives. If scenario (22a) is what happened in the course of the eighteenth century, then these original converts are likely to have resisted the change in ADC and certainly not have introduced it into their missionary directed speech. The introduction of *lo* into the missionary directed speech is thus likely to have occurred on a significant scale only once most of the original converts had died or their influence in the relevant speech community had faded. This must roughly have been in the last decade or two of the eighteenth century. By that time, there must have been an entirely new generation of spiritual workers for whom I assume the insistence on using *le* (instead of *lo*) was not a matter of identity, unlike for many of the original converts (in as far as *lo* was used as an aspect marker in the 1730s).

⁷⁵ Visiting Brother Johannes Loretz mentions in his mission report of 1784 (found by Peter Stein) that all Moravian brothers agree that Brother Auerbach had the best command of the creole language and that the Bible translations made by Auerbach are the only ones that can be understood by the enslaved population, without having to be reworked.

4.7. *Lo* in nineteenth and twentieth century Dutch Creole

Occurrences of *loop* ‘go’ with a final consonant are virtually absent in the nineteenth and twentieth century. Pontoppidan (1881) still differentiates in spelling between lexical <loop> ‘go’ and aspectual <lo>, but Magens (1883) writes only <lo>. The spelling of the narratives of de Josselin de Jong (1926) is purely based on pronunciation. Thus, the single case of *loop* ‘go’ in these narratives indicates a pronunciation with final /p/. The lexical verb practically always occurs without /p/, as in (25). There is variation between <loo> with a tense mid-closed rounded back vowel, and <lo> with a lax mid-closed rounded back vowel.

- (25) *Ham a loo a hus weráá.*
 3SG PST go LOC house again
 ‘She went home again.’
 (Joshua; de Josselin de Jong 1926: 11)

The current discussion will first treat *lo* preceding the main predicate of a finite clause, i.e., a clause where a tense marker, (*h*)*a* or *sa(l)* may occur. In this position, *lo* may function similarly to *le*, which we encountered in the eighteenth century data, with the difference that *lo* is a true aspect marker that may have present or past time reference.

Table 4.7: Aspectual interpretation of situations with preverbal *lo* in ADC

	Pontoppidan (1881)		Magens (1883)		de Josselin de Jong (1926)		Nelson (1936)	
<i>Imperfective</i>								
progressive	1	25%	4	67%	114	40%	3	25%
habitual	1	25%	1	17%	25	9%	-	-
stative(<i>epi</i>) ^a	-	-	-	-	7	2%	-	-
stative(<i>char</i>) ^b	-	-	-	-	3	1%	-	-
prediction	-	-	-	-	5	2%	-	-
<i>Other</i>								
inchoative	-	-	-	-	10	4%	-	-
prospective	2	50%	-	-	54	19%	7	58%
perfective	-	-	-	-	-	-	1	8%
<i>Lexical</i>								
perfective	-	-	-	-	7	2%	-	-
perfect	-	-	-	-	1	0%	-	-
<i>Ambiguous</i>	-	-	1	17%	56	20%	1	8%
Total ^c	4	100%	6	101%	282	99%	12	99%

^a = episodic stative

^b = characteristic stative

c = The cumulative percentage in Table 4.7 is not always 100%, because the percentages have been rounded off.

Table 4.7 makes a distinction between *lo* as an aspectual marker and *lo* as a lexical verb. There are only eight unambiguous cases where lexical *lo* ‘go’ occurs preverbally in an at least superficially similar syntactic context to where aspectual *lo* occurs (for comparison: 36 out of all ambiguous cases (64%) have a possible reading of *lo* as a main verb). In this construction, as in (26), *lo* expresses actual motion and either a purposive or a consecutive reading of the situation expressed by the following VP, parallel to *go* ‘go’ in Caribbean English Creoles (Winford 1993a: 195). This also corresponds to how *loop* was used in Magens (1770).

- (26) *Bru Pushi a lo koop mee kaas.*
 brother Cat PST go buy more cheese
 ‘Brother Cat went and bought/went to buy more cheese.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 29)

4.7.1. Imperfective aspect

Lo occurs with states and non-states alike, both in episodic⁷⁶ and characteristic sentences:

- (27) progressive
Wa ju lo du?
 what 2SG IPFV do
 ‘What are you doing?’
 (Joshua; de Josselin de Jong 1926: 22)
- (28) habitual
Di ha en boom, sen lo rupp di
 3.INAN have INDF tree 3PL IPFV call 3.INAN
piin-na-koop-blá-boom.
 pain-LOC-head-leave-tree
 ‘There is a tree, they call it *headache leaves tree*.’
 (Magens 1883: 130)

⁷⁶ Analyzing the verb *pin* ‘hurt’ as a stative in (29) is done on the basis of a definition of a stative as in Comrie (1976: 49). I am not sure whether this classification stative–nonstative on the basis of this definition is valid for the use of *lo* in the twentieth century data. Perhaps the only true distinction is that between a class of high frequent stative verbs that do not occur with imperfective *lo*: *ha* ‘have’, *ha fo* ‘have to’, *kan* ‘can’, *mangkée* ‘want’, *wel* ‘like/want’, and *weet* ‘know’ on the one hand, and other verbs on the other.

(29) *episodic stative*

Ham a see, wamaa shi bik loo pin am.
 3SG PST say why 3S.POSS belly IPFV hurt 3SG
 ‘She_i said, why is her_i belly hurting her_i?’
 (Joshua; de Josselin de Jong 1926: 16)

(30) *characteristic stative*

Foma skilpat mi hunduhan a loo woon fawe
 because Turtle with Cock PST IPFV live far-away
fa api di gobnéé a woon.
 from where DET governor PST live
 ‘Because Turtle and Cock lived far away from where the governor lived.’
 (J.A. Testamark; de Josselin de Jong 1926: 26)

Also counted as imperfective is *lo* before a motion verb indicating ongoing motion.

- (31) *Am a see di wuluwuluk: mi loo loo a mi*
 3SG PST say DET wolf 1SG IPFV go LOC 1SG
grani.
 grandmother
 ‘She said to the wolf: “I am going to my grandmother.”’
 (Joshua; de Josselin de Jong 1926: 19)

There are also contexts of progressive *lo* with the connotation of prediction. All five cases involve the verb *ko* ‘come’ with a third person subject:

- (32) *Fekán lo ko!*
 hurricane IPFV come
 ‘A hurricane is coming!’
 (Roberts; de Josselin de Jong 1926: 55)

4.7.2. Prospective aspect

The second most frequent function of nineteenth and twentieth century *lo* is to express prospective aspect (see Table 4.7). This function has been referred to in the literature as a proximate/immediate future (Van Diggelen 1978: 75; Sabino 2012: 175), immediate future/intention (Graves 1977: 152) and a certain/ immediate future (Stolz 1986: 166–167). The notion of immediate future is present in all of these descriptions. A future in general can be defined as being “equivalent to a prediction on the part of the speaker that the situation in the proposition, which refers to an event taking place after

the moment of speech, will hold” (Bybee & Pagliuca 1987, cited in Bybee et al. 1994: 244). Bybee et al.’s (1994: 273) discussion of immediate futures reveals that they can be typically paraphrased as “be[ing] about to do something” and “be[ing] on the point of doing something”, which is “in a sense [...] not at all like a prediction.” Immediate futures are “not strictly speaking futures at all,” but involve “assertions announcing the imminence of an event rather than a prediction that it will take place” (Bybee et al. 1994: 273). This latter description is remarkably reminiscent of the notion of *prospective aspect*, which makes no direct assertion about the future situation, but only refers to a state showing signs that the future situation may come about: prospective aspect refers to a pre-state, which is related to a future situation (Comrie 1976: 64–65; Klein 1994; Bohnemeyer 2002: 38), as in (33). This is a fundamental difference from a future tense, which does assert that the future situation will come about (Comrie 1976: 54). Another important difference is that the pre-state may lie in the past (= *past prospective*) (Jendraschek 2014).

- (33) *Mi loo kreew!*
 1SG PROSP yell
 ‘I am going to scream!’
 (J.A. Testamark; de Josselin de Jong 1926: 28)

I have also counted intentional occurrences of *lo* preceding the motion verb *lo* ‘go’ as *prospective*:

- (34) *Een dag am a see, am loo loo a shi*
 one day 3SG PST say 3SG PROSP go LOC 3S.POSS
grani.
 grandmother
 ‘One day, he said, he was going (to go) to his grandmother.’
 (Joshua; de Josselin de Jong 1926: 20)

4.7.3. Progressive construction

4.7.3.1. Attestations in the data

Imperfective *lo* is also involved in an imperfective construction to which not much attention has been paid so far. I will refer to this construction, where *lo* is preceded by a locative copula, as in (35), or another locative verb, as discussed below the *progressive construction*. In this construction, *lo* only expresses progressive aspect, since it only occurs in episodic sentences referring to particular situations. It is in variation with *lo* as an imperfective marker, as (36) shows. It is attested in the late nineteenth (Magens 1883) and the twentieth century data:

- (35) *Fo sini bin lo wak.*
 because 3PL be PROG wait
 ‘Because they were waiting.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 30)

- (36) *Am loo wak fo di meeⁿshi.*
 3SG IPFV wait for DET girl
 ‘He was waiting for the girl.’
 (Joshua; de Josselin de Jong 1926: 19)

Bybee et al. (1994: 131) predict that “a progressive involving a stative auxiliary always derives from a construction which originally included an element with locative meaning.” Table 4.8 lists the auxiliaries occurring in the complex progressive construction. The four copulas *wees*, *bin*, *bi*, and *mi* together account for two-third of all occurrences. Dutch Creole has seven copulas in total, all of which have a different functional distribution, as can be seen in Table 4.9. A comparison between Tables 4.8 and 4.9 shows that only copulas with locative function occur in the progressive construction. Other auxiliaries are locative verbs as well: *bli* ‘stay’, *set* ‘sit’, and *stan* ‘stand’, as in (37).

- (37) *So am a stan loo ki boo di man.*
 so 3SG PST stand PROG look on DET man
 ‘So he was (standing and) looking at the man.’
 (Joshua; de Josselin de Jong 1926: 21)

Table 4.8: The auxiliary verbs used in the progressive construction (in de Josselin de Jong 1926 and Magens 1883)

Auxiliary	N	%
<i>wees</i> ‘be’	9	29
<i>bin</i> ‘be’	5	16
<i>bi</i> ‘be’	5	16
<i>mi</i> ‘be’	1	3
<i>bli</i> ‘stay’	5	16
<i>set</i> ‘sit’	2	6
<i>stan</i> ‘stand’	3	10
<i>lei</i> ‘lie’	1	3
Total	31	100

Table 4.9: The functions of the Dutch Creole copulas, based on Stolz (1986: 152) and Sabino (1988: 204)

	Identity NP	Adjective	Location	Focus
<i>a</i>	++	+	-	+
<i>wees</i>	+	+	+	-
<i>bi</i>	-	+	++	-
<i>bee</i>	+	-	+	-
<i>bin</i>	-	-	++	-
<i>mi</i>	±	++	+	-
Ø	+	+	+/-	-

++ = the function of the majority of occurrences of this item

+ = a possible function of this item

± = a marginal function of this item

- = function not attested for this item

The locative character of the progressive construction is underlined even more by its highly frequent co-occurrence with adverbial locations (see Table 4.10):

- (38) *Hunduhaan mi na gron **lo** *rutl* *da*.*
 Cock be LOC ground PROG wrestle there
 ‘Cock was wrestling on the ground.’
 (Roberts; de Josselin de Jong 1926: 54)

- (39) *Am bin da **lo** *kreew it*.*
 3SG be there PROG shout out
 ‘He was yelling out loud.’
 (Roberts; de Josselin de Jong 1926: 52)

Table 4.10: The expression of location with the complex progressive construction containing a copula (in de Josselin de Jong 1926)

	Joshua	J.A. Testamark	J.A. Testamark/X	Roberts	Total	%
prepositional phrase <i>da</i> ‘there’	3	3	2	4	12	60
none	1	-	1	3	5	25
Total	1	-	1	1	3	15
	5	3	4	8	20	100

The location-less occurrences, as in (40), must be purely aspectual:

- (40) *Een man a wees loo fang sprat.*
 INDF man PST be PROG catch sprat
 ‘A man was catching sprat.’
 (Joshua; de Josselin de Jong 1926: 12)

4.7.3.2. *Change or variation?*

The progressive construction is not attested for all of de Josselin de Jong’s nine informants (Table 4.11), but lack of occurrence need not imply that they did not use the construction at all. In any case, as we saw in Table 4.10, these speakers vary in the frequency of co-occurrence of the progressive construction with a specification of location and how specific that specification is. I think it is here that we find a strong clue to this being a language change in progress. First, *lo* may combine with a verb to form a non-finite predicate that may be adjoined to other constituents than syntactic subjects, such as a direct object, as in (41), or a complement of a preposition, as in (42).

- (41) *Ju goodfornothing, ju kaa listáá mi lo wak*
 2SG good.for.nothing 2SG PRF leave/let 1SG PROG wait
nabono ju.
 on 2SG
 ‘You good-for-nothing, you have kept me waiting for you.’
 (Prince; de Josselin de Jong 1926: 25)

- (42) *Sin maa a doot mi shi hogo wit hopo*
 3PL mother PST dead with 3S.POSS eye wide open
mi shi tan lo grin.
 with 3S.POSS tooth PROG grin
 ‘Their mother died with her eyes wide open and her teeth grinning.’
 (Roberts; de Josselin de Jong 1926: 45)

Thus, the non-finite use of *lo* + verb is not specific to the progressive construction (as discussed in §5.3.2., perfect marker *ka* also occurs in similar non-finite constructions). Therefore, it is likely that this construction originates from its use that is still most frequent (Table 4.10): the linking of a referent to a location and the situation it performs/undergoes at the same time. In cases like (39), where the adverb *da* ‘there’ is used, the location is only minimally specified and as a consequence, the situation becomes more prominent. When the location is entirely absent, as in (35) and (40), the

neutral locative verbs *bin* and *wees* do not contribute any meaning⁷⁷: only the progressive aspect expressed by *lo* remains.

This scenario is typical for how progressive constructions evolve from a typological point of view (Bybee et al. 1994: 131–132).

Table 4.11: The expression of location with the progressive construction

Language user	Location	N	%
<i>Magens</i> (1883)	PP	1	3
<i>de Josselin de Jong</i> (1926)			
Joshua	PP	6	19
	<i>da</i> ‘there’	2	6
	no	3	10
J.A. Testamark	PP	3	10
J.A. Testamark/X	PP	2	6
	<i>da</i> ‘there’	1	3
	no	1	3
Roberts	PP	4	13
	<i>da</i> ‘there’	7	23
	no	1	3
		31	99

We are not dealing with language change here if the variation in Table 4.11 has always been inherent in the ADC speech community and has not seen a rise in frequency of any of the variants at the expense of other ones. Again, we are not able to verify this through corpus study, as we lack the relevant data for this.

I think that it is likely that *lo* has since long been in use to form a non-finite predicate that allows for the construction of the various types illustrated here. My assumption is that the following points are to be seen as innovations: 1) an increase in the frequency of *da* ‘there’ with progressive predicates formed with a locative auxiliary; 2) the introduction of progressive predicates formed with a neutral locative auxiliary (such as *bin* or *wees*) without a specification of location. Based on the structural similarity with the English progressive construction (a neutral locative auxiliary *be* plus a non-finite progressive predicate *v-ing* without the specification of a location between these two constituents of the construction) and the fact that starting from the late eighteenth century ADC speakers became increasingly more bi- or even trilingual in Dutch Creole and English and/or English Creole, the last step in the proposed change may

⁷⁷ In (40), *wees* may be an existential introducing a new referent, *een man* ‘a man’. Possibly the two constructions overlap here.

have been modelled on the English progressive construction. In the twentieth century and probably the whole nineteenth century too, English and/or English Creole was the dominant language for all ADC speakers.

4.8. Prospective *lo lo*

4.8.1. Attestations in the data

Besides prospective *lo*, there is also a prospective construction *lo lo*. Its first attestation, (43), dates from the 1860s (Van Name 1871: 127).

- (43) *Mi lo lo val.*
 1SG PROSP fall
 ‘I am going to fall.’
 (Van Name 1871: 162)

Just like *lo*, *lo lo* has generally been considered an immediate future. Bruyn and Veenstra (1993: 37) rightly point out that an immediate future interpretation is problematic in cases such as (44) where the situation *jit am* ‘eat her’ can no longer be fulfilled, because the alleged actor has already been killed at topic time. This is perfectly in line with how a prospective marker is predicted to function: it only involves an extrapolation of signs predicting the potential realization of a situation, but does not make any assertion about the realization of the situation. Therefore, *lo lo* in (44) makes perfect sense as a marker of prospective aspect, because it refers to the expectation of the people in the bushes, who were not aware of the fact that the monster had already been killed.

- (44) *Alga də fulək sini a wees bini də bus lo*
 all DET people 3PL PST be inside DET forest IPFV
ki wini də got loo loo jit am.
 see when DET god PROSP eat 3SG
 ‘All the people were inside the forest to see when the god was going to eat her.’
 (Joshua; de Josselin de Jong 1926: 14)

Stolz (1986: 242) rightly observes that almost all attestations of *lo lo* are from only one of de Josselin de Jong’s (1926) informants. However, prospective *lo lo* is also used by Van Name’s young informant from the 1860s and Dutch Creole’s last speaker when recorded in the 1980s by Gilbert Sprauve (see van Rossem and van der Voort 1996: 271). It also occurs once in Pontoppidan’s (1881: 138) conversation sample. A comparison between de Josselin de Jong’s (1926) only two informants who

Table 4.13: Unambiguously and ambiguously prospective *lo* and *lo lo*^a

	Prospective <i>lo</i>		Prospective <i>lo lo</i>		Total	
	N	%	N	%	N	%
<i>Schmidt (1788)</i>	2/2	100	-	-	2	100
<i>Pontoppidan (1881)</i>	1/2	25	0/2	-	4	100
<i>A. Mogens (1883)</i>	-	-	-	-	-	-
<i>de Josselin de Jong (1926)</i>						
Joshua	8/15	21	22/23	58	38	100
Prince	1/1	100	-	-	1	100
J.A. Testamark	6/6	100	-	-	6	100
J.A. Testamark/X	6/6	86	0/1-	-	7	100
Joseph	3/3	100	-	-	3	100
Christian	2/4	50	-	-	4	100
Roberts	25/37	64	1/2	3	39	101
<i>Nelson (1936)</i>						
H. Francis	1/4	20	1/1	20	5	100
V. Musinton	2/2	100	-	-	2	100
I. Sylvester	3/4	75	-	-	4	100
R. Francis	1/1	100	-	-	1	100

a = for example, 8/15 means: eight occurrences of preverbal *lo* that unambiguously have prospective meaning, and seven (15-8) that are ambiguous between a prospective and another interpretation.

Let us bypass the origin of prospective *lo* and *lo lo*, but focus instead on the speakers that alternate between the two. With the exception of Van Name's (1871) informant,⁷⁹ all those who use *lo lo* (i.e., four or five speakers) also use *lo*. These speakers do not seem to form a group in terms of region (in so far we are able to gather from the information we have), as we have users of *lo lo* from all three islands: Joshua is from St. Thomas, Roberts is from St. John, and H. Francis is from St. Croix (see §2.2.6.4.4 and §2.2.6.4.5).

The complexity of the situation is that we are dealing with two items of which we do not know exactly how and when they developed, discussing data spanning two full centuries. With respect to *lo*, we can only guess when it came in common use as a prospective marker. Therefore, let us simply assume that *lo* was on the rise as a prospective marker at least from its earliest documentation in 1788. Under this assumption, we may tentatively analyze *lo lo* as the innovative form and *lo* as the commonly used conservative form at the end of the nineteenth century.

There are two speakers who contributed sufficient data so that at least we may have some idea of whether they are progressive, in-between, or

⁷⁹ Van Name does not mention prospective *lo*, so we simply do not know for this speaker.

conservative language users (as loosely defined in Nevalainen et al. 2011: 6): de Josselin de Jong's informants Joshua and Roberts. When we compare these two speakers to each other, we can conclude that Joshua is a progressive speaker. We cannot be conclusive on whether Roberts is conservative or in-between, because we do not know what the distribution would be of other informants, had they contributed more (other informants may not have used *lo lo* simply because their contributions were too small).

As we assume that prospective *lo* is older than prospective *lo lo*, we might expect that *lo lo* is less advanced in its development into a prospective marker. Coghill (2010: 386–387) formulates three stages in the development of a prospective marker: a) extension to contexts where a movement interpretation is not available, such as with the verb GO; b) extension of use from first person subjects to third person subjects, where intention is less transparent; and c) extension to an inanimate subject, which cannot have any intention. Joshua's data show that *lo* and *lo lo* have evolved through these phases to the same extent. Examples (46) and (47) show that both markers have extended to contexts where a movement interpretation is not available, even though *lo lo* does not co-occur with *lo* 'go' itself.

- (46) *Husoo mi loo loo?*
 how 1SG PROSP go
 'How am I going to go?'
 (Joshua; de Josselin de Jong 1926: 13)
- (47) *Nu di queen loo loo kri kwaan.*
 now DET queen PROSP get angry
 'Now the queen is going to get angry.'
 (Joshua; de Josselin de Jong 1926: 14)

Table 4.14 shows that both *lo* and *lo lo* have extended their use to third person subjects, but neither *lo* nor *lo lo* occurs with inanimate subjects when having prospective meaning. This shows that *lo lo* has completed its development into a prospective marker, at least for Joshua.

Table 4.14: The person of the subjects of the two prospective constructions
lo and *lo lo* in de Josselin de Jong 1926

	<i>lo</i>		<i>lo lo</i>	
1st person subject	14	26%	10	42%
2nd person subject	2	4%	-	-
3rd person subject	38	70%	14	58%
Total	54	100%	24	100%
Fisher's Exact test	p = .308			

4.9. Conclusion

The four case studies of Virgin Islands Dutch Creole preverbal aspect markers *le* and *lo* are an illustration of how to address the issue of whether we are dealing with language change or stable variation. The discussions, embedded in Weinreich et al.'s (1968) take on language change and its relationship to sociolinguistic variation, confirm that both may be the case at the same time. Thus, it is imperative to distinguish first what relevant language varieties can be discerned and how the values of the feature in question relate to these varieties.

In two of the four case studies, the data explicitly mention that there is a change. In the other two cases, it remains difficult to be conclusive. In the case of the progressive construction, the fact that there is variation within speakers that conforms to the cross-linguistically typical grammaticalization path of a progressive marker with a stative auxiliary (as discussed in Bybee et al. 1994: 131) – there are various degrees of indication of location in the progressive construction – is a strong indication that there is an ongoing change. At the same time, these observations alone are not sufficient to actually prove that there is change. Very general sociolinguistic background information may however provide an additional cue. In the course of the eighteenth and the nineteenth century, an increasing number of ADC speakers became bilingual in English and/or English Creole. In the final stage of the proposed grammaticalization chain, the Dutch Creole progressive construction is structurally identical to the English progressive. Thus, there is reason to suspect that the use of the progressive construction without specification of location is an innovation. This is particularly convincing given that the progressive construction is a complex marker of progressive aspect, while Dutch Creole already has a simpler way of marking progressive aspect: imperfective *lo*, which is itself part of the progressive construction.

In the case study of the prospective markers *lo* and *lo lo*, it is hardest to come to conclusions. There are many indications of variation, but a limited quantity of data and almost complete lack of sociolinguistic background data make it impossible to link the variation to sociolinguistic variables (the social embedding). As to the linguistic embedding, there is not much to say other than that prospective *lo* and *lo lo* are functionally equivalent. The only exception to this is that *lo lo* does not co-occur with the lexical verb *lo* 'go'. The fact that all those who use *lo lo*, also use *lo*, while the opposite is not the case, that the use of prospective *lo* is much more widely attested across different speakers than prospective *lo lo*, and that *lo* is a formally simpler means of expressing the same – prospective *lo lo* consists most likely of imperfective *lo* plus lexical *lo* 'go' – suggest all three combined that *lo lo* is a younger form and thus most likely an innovation. The fact that two

informants of roughly the same age – Joshua and Roberts, born in 1858 and 1863 respectively – each have a strong preference for another marker – *lo lo* and *lo* respectively – support that the markers are not in random variation. But at exactly how that variation is ordered and at the social evaluation of the two markers, we can only guess.

For the obvious reason that linguistic data is often all there is, the linguistic embedding of the four discussed alternations is often easiest to study. The social embedding and the social evaluation are for the same reason impossible to recover in most cases. It is only in the second case study concerning the switch from *le* to *lo* in MDC, that we are able to make some educated guesses. It is also for this case study that the reconstruction of the transition problem of the features can be done with a fairly high degree of confidence.

In the first case study, I have reconstructed two scenarios for the source of the use of past marker (*h*)*a* with *le*. In these two scenarios, the actuation and the transition are of course related. In the third case study, the suggestion of contact- induced grammaticalization has implications for the actuation and the transition (probably from speakers bilingual in Dutch Creole and English). In the fourth case study, however, the transition phase cannot be reconstructed due to lack of sociolinguistic data.

What the above discussion perhaps illustrates most clearly is that the kind of inferences that can be drawn from available data differ considerably from case to case. In the case of the prospective markers, we cannot do much more than observe that there is variation, that the two markers are functionally equal, and that *lo lo* is probably a later innovation than *lo*. This is different in the eighteenth century case studies of *le* that are based on missionary data. Here, the number of plausible scenarios can be maximally reduced with only small cues from the data. Thus, these case studies are a good illustration of how we can work around the *filter* that obscures missionary data and resulting controversies.

CHAPTER 5. THE DEVELOPMENT OF PERFECT *KA* AND COMPLETIVE *KABA*

5.1. Introduction

The fact that a creole such as Virgin Islands Dutch Creole (abbreviated to Dutch Creole) emerged in a contact setting where enslaved speakers of West African languages required a means of communication not only among themselves but also with European colonists is reflected in the make-up of the language. The lexical material used in creoles is predominantly of European origin, which is consistent with the fact that the Europeans were the socially dominant oppressors. The origin of the creole items' functions and constructions is typically less uniform. This chapter addresses the TMA markers that focus on the completion of events. Dutch Creole uses preverbal *ka* to express what has been labelled “completive aspect” (Graves 1977), and has been argued to function as a “resultative” (Stolz 1986), a “perfective” (Bruyn & Veenstra 1993; Sabino 2012), and an “anterior” (Sabino 1986). Its use is illustrated in (1).

- (1) *Die boricka ka marro*
DET donkey PRF run.away
'The donkey has escaped'
(Pontoppidan 1881: 138)

The morpheme *ka* is generally assumed to derive from Dutch Creole *kaba* 'finish' that in turn originates from Spanish or Portuguese *acabar* 'finish' (van Name 1871: 162; Hesseling 1905: 108; Stolz 1986: 184–190; den Besten & van der Voort 1999: 414).

Dutch Creole *kaba* also occurs as a TMA marker by itself, as illustrated in (2), but it is deviant from other Dutch Creole TMA markers and phasal aspect verbs in that it may occur in post verbal position.

- (2) *En as Em a ka wasch sender die Voet-en kabba*
and when 3SG PST PRF wash 3PL DET foot-PL finish
'And when he was done washing their feet/when he had washed their feet,'
(Böhner nd.b: 330)

Other creoles such as Papiamentu(/-o) and Sranantongo also have a verb *kaba* 'finish' of the same origin and meaning. Previous studies by Winford (2000; 2006; 2008), and Winford & Migge (2007) report substrate influence

for the Sranantongo completive/perfect marker *kaba* ‘finish’, which is combined with features from the lexifier language (van den Berg & Aboh 2013). Although numerous studies have addressed Dutch Creole *ka*, only Stolz (1986: 186–187) discusses Dutch Creole *kaba* in relation to other creoles with reflexes of Portuguese *acabar*.

This chapter aims to explore the origin and use of the aspect markers *ka* and *kaba* more closely in comparison to equivalent constructions in the language’s lexifier, mainly southwestern varieties of Dutch, and its potential substrate languages, including Akan, Ga, and Ewe (see §2.1.4). The data sources from the NEHOL database (see §2.2) consulted for this study are listed in Table 5.1: included are all data sources that contain either *ka* or *kaba*.

Table 5.1: The Dutch Creole sources from the NEHOL database (corpus1.mpi.nl) that contain *ka* (all) and *kaba* (in bold)

Source name	Source type	Author	Nationality	Year
Letter	letter	Domingo Gesoe	DWI ^a	1752
Letter	letter	Catarina	DWI	1753
Oldgespr	dialogues	Oldendorp	Moravian	ca. 1768
Wold ABB	primer	Wold	Danish	1770
1770 MAGENS	dialogues	J.M. Magens	Danish	1770
PSBUK70	hymn book	<i>unknown</i>	Danish	1770
3.2.1	GH^b	Böhner	Moravian	1769–1780
3.2.2	GH^b	Böhner	Moravian	1769–1780
AUER74	letter	Auerbach	Moravian	1774
3.2.5	OT^c	Böhner	Moravian	1780–1785
Magens39	NT^d	Magens	Danish	1781
AUER84	catechisms	Auerbach	Moravian	1784
3.3.1.3	OT ^c	<i>unknown</i>	Moravian	1795
3.2.3.1	GH^b	<i>unknown</i>	Moravian	unknown
LUND98	religious	Lund	Danish	1798
Barby ABC	primer	<i>unknown</i>	Danish	1800
PRAET23	hymn book	<i>unknown</i>	Danish	1823
PONTOPPI	proverbs, dialogues	Pontoppidan	Danish	1881
AMAGENS	letter	A. Magens	Danish	1883
1926 dJdJ texts	folk tales	de Josselin de Jong	Dutch	1926
NELSON	field notes	Nelson	USA	1936

a = Danish West Indies

b = Gospel Harmony

c = Old Testament

d = New Testament

Given the disagreement in the literature mentioned above on the exact function of Dutch Creole *ka*, first §5.2 will be devoted to finding out exactly

how the use of *ka* in the eighteenth century MDC, EDC, and the late nineteenth and twentieth century ADC data can be best characterized. The discussion in §5.2 also serves to establish the framework of aspect used to explore the functions of *ka* and *kaba* in this chapter. §5.3 discusses how *ka* is used in the eighteenth and the twentieth century Dutch Creole data, and in §5.4 the same is done for *kaba*. §5.5 then compares the use of Dutch Creole *ka* and *kaba* to similar constructions in the languages involved in the creation of Dutch Creole: its lexifier Dutch and the West African languages Akan, Ga, and Ewe. On the basis of these findings, the development of Dutch Creole *kaba* and Dutch Creole *ka* is discussed in §5.6. The main findings and conclusion are presented in §5.7.

5.2. Analytic framework

The Dutch Creole preverbal aspect marker *ka* has been discussed in many descriptions of the language. Yet, no consensus has been reached as to what kind of aspect *ka* actually expresses. The first descriptions label *ka* a perfect marker (Magens 1770; Oldendorp 2000). Both authors remark that *ka* is often used instead of the copula *ben/bin* ‘be’ (Magens 2009: 26; Oldendorp 2000: 698): “One says: *mi ka moe* instead of *mi ben moe* I am tired”⁸⁰ (Oldendorp 2000: 698). Van Name (1871: 163) comments on this remark that “[*ka*] appears in such cases to denote always a resultant state, ‘I have become tired.’” Hesseling (1905) similarly concludes that “[t]his function of *ka* can be deduced from the sense of an action that took place in the past from which a condition in the present is the result (Greek perfectum)” (1905: 107, translation Graves 1977: 140).

Graves (1977: 140) agrees that “the *ka*-construction focuses on the resultant situation”, but rejects the label Perfect, because of “the exclusively completive connotation of the verb form in all its occurrences” (1977: 141). Thus, Graves states that “the ver (sic) [with *ka*] necessarily denotes a present state caused by an action /process in the past” (1977: 141). Additionally, “[it] indicates that it was done to the finish, and that this fact is what is of importance in the context” (1977: 142).

In creole languages, the term *completive* is commonly used for markers such as *don* in English-lexifier creoles, and *kaba* in Sranantongo. Here, we embark on the issue what a completive marker expresses in creole languages and how this relates to a perfect marker. In their typological study, Bybee et al. (1994: 54) define a *completive* as “to do something thoroughly and to completion.” However, Winford (2000: 440) indicates that this definition is different from how it is used in creole studies, and that Bybee et al. (1994)

⁸⁰ “Man sagt: *mi ka moe* anstatt *mi ben moe* ich bin müde”.

would consider the creole completive markers (e.g. *don* and *kaba*) a type of *perfect* (i.e., *anterior* in their terminology). In that perspective, it is not surprising that Graves's definition of a *completive* corresponds to that of a *resultative* or a *perfect*, as we will see in this section. §5.2.3 discusses the features of the cross-linguistic category of *perfect*. In §5.2.4, I will discuss the features of the items labelled *completive* in creole languages and compare these to those of a *perfect*.

First, however, I discuss two other categories that *ka* has been asserted to express in more recent studies, i.e. a resultative (5.2.1), and a perfective (5.2.2), and show that these are not felicitous.

5.2.1. Resultative aspect

Stolz (1986: 185) refers to Graves's (1977: 140) definition given above, and logically concludes that *ka* is better characterized as a RESULTATIVE. He illustrates this with the following examples, which refer to a resultant state:

- (3) *Am kaa lei a gron loo slap*
 3SG KA lie LOC ground IPFV sleep
 'He lay sleeping on the ground.'
 (Joshua; de Josselin de Jong 1926: 13)
- (4) *Am ha kaa koo hou.*
 3SG PST KA come old
 'It had become old.'
 (Joshua; de Josselin de Jong 1926: 16)

Resultative aspect has been defined as "denot[ing] that a state was brought about by some action in the past" (Bybee et al. 1994: 63). This function may also be covered by perfects: "the perfect of result [indicates that] a present state is referred to as being the result of some past situation" (Comrie 1976: 56). Resultatives have the potential to evolve into perfects. The "precursors" of the contemporary perfects in the West European Romance and Germanic languages "were originally resultative in function" (Bybee et al. 1994: 68). A true resultative can be distinguished from a (resultative) perfect in that "only resultative consistently signals that the state persists at reference time" (Bybee et al. 1994: 63), and that resultatives are restricted to "predicate[s] that indicate[] a change of state or an action that produces a change of state" (Bybee et al. 1994: 65). See also Mittwoch (2008: 335) for a similar conclusion (see §5.2.3).

Bruyn & Veenstra (1993: 36) reject the analysis of *ka* as a resultative marker because it occurs before stative predicates, where no resultant state is possible. In §5.3, we will see many occurrences of *ka* where no resultant

state is possible, corroborating that a *resultative* is a felicitous characterization of *ka* in only a subset of its occurrences.

5.2.2. Perfective aspect

Instead of a resultative, *ka* is argued by Bruyn & Veenstra (1993) “to describe a situation which is perceived as complete, with no more emphasis on the end of the situation as on any other part of it, all parts of the situation being presented as a single whole [...]. This makes *kā* a marker of perfectivity that may appear with nonstative and stative verbs alike” (Bruyn & Veenstra 1993: 36).

Although I agree with their objection that *ka* is not just a marker of resultativity, the label of PERFECTIVE marker is less appropriate. In their definition just given, which is based on Comrie (1976: 18), it is stated that perfective aspect assumes not only the beginning but also the termination of the event. This logically restricts perfective aspect to the past.⁸¹

Perfective situations are typically used to “narrat[e] sequences of discrete events in which the situation is reported for its own sake, independent of its relevance to other situations” (Hopper 1982, cited from Bybee et al. 1994: 54). Thus, perfective markers are particularly frequent in narratives.

In Chapter 3 (published as van Sluijs 2014a), I show that Dutch Creole past marker (*h*)*a* is typically – though by no means exclusively – used in perfective situations. In (5), all perfective situations are marked by past marker *a* (i.e., (5a-e,g), while the only clause marked by *ka* (5f) is not perfective, but refers back to a previous event, i.e., (5b).

- (5) a. *Den am a loo.*
 ‘Then he went.’
 b. *Am a ris,*
 ‘He lifted,’
 c. *am a move dā steen.*
 ‘he moved the rock.’
 [...]
 d. *Ham a skreew mi een sterək stem.*
 ‘He shouted with a powerful voice.’
 [...]
 e. *Am a fin shi maa.*
 ‘He found his mother.’

⁸¹ But see e.g. Malchukov (2009) on the so-called “present perfective paradox”; and Dahl (1985: 78-83), discussing that perfectives do not necessarily have past time reference in all contexts. See also Brisard & de Wit (2014) on the perfective in Sranan.

- f. *Am kaa kri di.*
 ‘He had managed.’
 g. *Shi maa a bos kris.*
 ‘His mother started crying.’
 (Joshua; de Josselin de Jong 1926: 11)

5.2.3. Perfect

PERFECTS “[relate] some state to a preceding situation” (Comrie 1976: 52). In the literature, a variety of different uses of perfect meaning have been distinguished. The three most basic of these are: i) the *resultative perfect*, or *perfect of result*; ii) the *experiential* or *existential perfect*; and iii) the *continuative/universal perfect*, or *perfect of persisting situation* (see e.g. Leech 1971; Comrie 1976; Dahl 1985).⁸²

A RESULTATIVE PERFECT is described as referring to a “present state [...] as being the result of some past situation” (Comrie 1976: 56). Thus, a resultative perfect indicates that the resultant state of an event holds at reference time, as in the English and Dutch Creole examples (6) and (7) respectively:

- (6) John has arrived. (= John is here now).
 (7) *Di meestu pushi kaa dot.*
 DET master cat PRF die
 ‘The master’s cat is dead.’
 (Roberts; de Josselin de Jong 1926: 64)

A resultative perfect refers to a specific singular event and a singular resultant state (Mittwoch 2008: 342–343). Thus, if the event is modified by a quantificational adverb, such as *twice*, we are dealing with an EXPERIENTIAL

⁸² Comrie distinguishes a fourth type, the *perfect of recent past* (1976: 60). It seems to have developed into an independent category (out of a resultative perfect) in varieties of Spanish (see e.g. Schwenter & Torres Cacoullos 2008 and Copple 2011). Dahl (1985: 136) recognizes the close link between recent past and a resultative perfect: “temporal closeness and having a result at the point of speech may well both be relevant factors for one and the same category, something which is at least fairly clear for some of the languages in our material” (1985: 136).

Another type of perfect distinguished is the *hot news perfect* (McCawley 1971: 104, 109; McCawley 1981, cited in Mittwoch 2008: 344), which “basically relates to something the hearer knows about and presumes the hearer does not know about” (Depraetere 1998: 598). Michaelis (1994) and Kiparsky (2002) analyze these as resultative perfects. Mittwoch (2008: 344) “share[s] the intuition that they are closer to Resultative [than to Experiential], though in the absence of a definable result state” she regards them as a category of their own.

perfect (see Mittwoch 2008: 128–129 for more restrictions on the English resultative perfect).

The experiential perfect “indicates that a given situation has held at least once during some time in the past leading up to the present” (Comrie 1976: 58). The specification “at least once” indicates that it is not essential to the experiential perfect whether the situation has occurred once, more often, or characteristically/habitually in the past. Crucially, a resultant state does not arise with experiential perfects, such as “Bill has been to America” (1976: 59). Some languages have a specific marker exclusively for experiential perfects (e.g., Comrie 1976: 59; Dahl 1985). Experiential perfect markers are also found in the West-African Gbe languages (e.g. van den Berg & Aboh 2013: 158, 160–161).

Finally, the CONTINUATIVE perfect “describe[s] a situation that started in the past but continues (persists) into the present” (Comrie 1976: 60), as illustrated in (8), an English example, and (9), an eighteenth century Dutch Creole example.

(8) I’ve shopped there for years. (= I still shop there) (Comrie 1976: 60)

(9) *En een Mensch a wees na daar, die a ka lee*
 and INDF human PST be LOC there REL PST PRF lie
al acht en dertig Jaar siek na daar.
 already eight and thirty year ill LOC there
 ‘And there was someone there, who had been lying there ill for thirty-eight years already.’
 (Böhner nd.a: 36)

It seems that divergent behaviour may occur when perfects generalize to be used with stative predicates. “In the early stages it would not be normal for constructions with ‘finish’ or anteriors [i.e. perfects] from *be* or *have* auxiliaries to be used with stative predicates. That is, the ‘finish’ constructions develop a meaning of completion and totality which, when applied to a state, signals the completeness of the state” (Bybee et al. 1994: 76). “Completeness of the state” should be interpreted as “emphasizing the completeness with which the state applies to the entity” (Bybee et al. 1994: 74), or “the entity is totally affected by the state” (Bybee et al. 1994: 74). In other words, this does not mean that the modified state no longer holds at reference time, but on the contrary, that it still does. Thus, there is “a sense of ‘present state exists’” (Bybee et al. 1994: 74), as is for example the case with Tok Pisin *pinis* ‘finish’:

- (10) *tupela i pren pinis*
 two COP friend finish
 ‘The two are real friends’
 (Mühlhäusler 1985: 380, cited in Bybee et al. 1994: 71)

It is often not obvious from a given utterance containing a perfect itself which is the intended interpretation: is it resultative, experiential, or continuative? Nishiyama & Koenig (2010) successfully argue that the perfect is monosemous, and that it is pragmatically (and not semantically) ambiguous between its possible interpretations. In my analysis of Dutch Creole *ka*, I want to distinguish the various possible perfect interpretations to understand how *ka* is used in the eighteenth and twentieth century data. In agreement with the monosemous account of the perfect, these distinctions made in this chapter should not be taken to imply that they represent different kinds of perfect. The fact that there are grey areas between the different *perfect* interpretations have led scholars to disagree on what counts as resultative or experiential and this disagreement adds support for the monosemous account. Thus, when trying to classify all occurrences of an assumed perfect marker, one inevitably runs into the problem of having to create artificial boundaries.

The difference noted by Mittwoch (2008) between STRONG and WEAK resultatives makes obvious the difference between a resultative marker, as discussed in §5.2.1, and a perfect marker. A strong resultative has a resultant state (“target state”, behind the slashes in (11)) in which by definition “[t]he internal argument of the event sentence is the theme and subject of the state sentence” (2008: 328). Strong resultatives are “clear cases [of a resultative] that everybody would include” (2008: 328).

- (11) Mary lock the door // the door be locked. (Mittwoch 2008: 328)

Weak resultatives do not have such type of resultant state, because they do not have “an internal argument that becomes the theme of a state sentence” (Mittwoch 2008: 333). This is illustrated in (12), where the predicate “is telic, but does not denote a transition; knowing the content of a book is not a target state of reading it” (Mittwoch 2008: 333).

- (12) Mary has read Middlemarch. (taken from Portner 2003)

An experiential interpretation can be discerned from a strong resultative one, when the resultant state of the base predicate no longer holds at reference time:

- (13) *ju goodfornothing, ju ... kaa lo nabono ju eigən bəstél.*
 2SG good.for.nothing 2SG PRF go on 2SG own business
 ‘You good-for-nothing, you went to do your own thing.’
 (Prince; de Josselin de Jong 1926: 25)

A non-transitional post state of the base predicate results in ambiguity between an experiential and a weak resultative interpretation, but it is irrelevant to ask whether or not such post state still holds at reference time. We can distinguish between them, when there is reference to more than one instantiation of the event or more than one instantiation of the post state, which signals an experiential interpretation.⁸³ Thus, sentences containing *ka* are coded weak resultative when they refer to a specific singular event with a singular non-transitional post state that holds at reference time.

5.2.4. Completives

In their typological study, Bybee et al. (1994: 57) define COMPLETIVES as “to do something thoroughly and completely”. They note that the markers they identify as *completives* often have the following meaning/function:

- a) The object of the action is totally affected, consumed, or destroyed by the action. [...] ‘to eat up’ is a good example.
- b) The action involves a plural subject of intransitive verbs or object of transitive verbs, especially an exhaustive or universal plural, such as ‘everyone died’ or ‘he took all the stones’.
- c) The action is reported with some emphasis or surprise value.

However, as already mentioned in the previous section, this is not how the term *completive* is used in creole studies. As Winford (2000: 440) remarks, the Guyanese Creole and Sranan completive markers *don* and *kaba* respectively “would probably be treated [by Bybee et al. (1994)] as a type of Anterior”, which is their term for *perfect*. Youssef (2003) extensively discusses how *completive* is defined in various creole studies, and what functions are ascribed to the creole marker to which the label *completive* is applied. In her conclusion, Youssef (2003: 101) suggests that what is referred to as *completive* is best seen as a specific subtype of the “universal aspect categor[y]” *perfect*, whose exact discourse functions and semantics may differ from language to language. Thus, we should not be looking for a definition that holds for all creole completive markers. When it is our goal to determine whether an item is a *creole completive* or a more general/less

⁸³ Dahl reinterprets Inoue’s (1975) account of the Japanese experiential construction *–ta koto ga aru*, as meaning that experientials “must concern a generic activity, state etc., rather than an individual, or specific one” (Dahl 1985: 141).

specific *perfect*, we need to have an idea on what basis we can group the creole completives together. This is the purpose of the current subsection. A complete typological overview of all possible features of creole completive markers is beyond the topic of this chapter. Instead, I will limit myself to a handful of proto-typical cases of creole completive markers and discuss their features. This will turn out to suffice for the purposes of this chapter.

If a creole completive marker is a specific subtype of a perfect, we first need to establish what kind of *perfect* meaning this is. Winford (2000: 433) tells us that “[p]reverbal *don* in [Caribbean English Creoles] ... may be an auxiliary marking Completive aspect, expressing the sense of ‘already’ and functioning in ways quite similar to a type of PERFECT.” As already seen in the previous paragraph, Winford (1993: 50) specifies this perfect as a resultative perfect. In Sranan, this same meaning “can be conveyed [...] only by VP-final *kaba*. With non-statives, it conveys the sense of a past event that leads to some result with implications for the current situation, in this use, *kaba* conveys a meaning similar to that of a perfect of result” (2000: 433).

However, two of Winford’s examples illustrating this resultative perfect use of Sranan *kaba*, reproduced below as (14) and (15), contain the adverbial *tu leisi* “twice” and the quantifier *wan tu* respectively, indicating that both sentences refer to non-singular events.

- (14) *Want na tu leisi mi nanga a man meki afspraak*
 because COP two time I and theman make appointment
kaba, a man no kon.
 already theman NEG come
 ‘Because it’s twice that me and the guy made appointments already,
 and he never came.’
 (Winford 2000: 433)

- (15) *Dus mi ben go a wan tu suma kaba.*
 so I PAST go LOC one two person already
Dan mi prakseri kon mi kon na oom N.
 then I think come I come LOC uncle N
 ‘So I’d already gone to one or two people. Then I thought, let me
 come to Uncle N.’
 (Winford 2000: 434)

As we have seen in the previous subsection, this means that *kaba* in (14) and (15) functions as an experiential perfect rather than a resultative.⁸⁴

⁸⁴ Alternatively, *go* in (15) might be interpreted as perfective, in which case *kaba* expresses the meaning of ‘already’ but without perfect meaning. In the same way, the anterior reading of (15) can be attributed to the anterior marker *ben*.

Sranan *kaba* has also generalized to stative predicates. In accordance with the pattern attested by Bybee et al. (1994: 74) for perfects derived from a ‘finish’ verb, Sranan *kaba* refers to states that hold for reference time, as in (16). In examples like this one, it is particularly clear how Sranan *kaba* seems to have “grammaticized into an adverb [...] convey[ing] the sense of ‘already’” (Winford 2000: 431).

- (16) *want yu si fa yu fini fini kba.*
 because you see how you fine fine already
 ‘because you see how you’re skinny already’
 (Winford 2000: 435)

Guyanese Creole *don* also refers to a present state when it occurs with a stative predicate, as in (17). It has the same sense of ‘already’ as Sranantongo *kaba* (further demonstrated for Guyanese Creole *don* in Winford 1993b: 52).

- (17) *Shi don so fat, bot shii stil waan iit ten taim a dee.*
 ‘She’s already so fat, but she still wants to eat ten times a day.’
 (Winford 1993b: 50)

Additionally, CEC *don* “may have a terminative reading [before non-statives]” (Winford 1993b: 51):

- (18) *Wen yu don iit, wi go taak.*
 ‘When you’ve finished eating, we’ll talk.’
 (Winford 1993b: 51)

However, Winford (1993b: 52) makes it clear that this terminative reading is not a defining feature of creole completive markers, although the sense of ‘already’ seems to be.

Thus, we can sum up the following characteristic features:

- i) a creole completive indicates that a non-stative event is finished with implications for reference time (resultative perfect)
- ii) a creole completive has a sense of ‘already’,⁸⁵

⁸⁵ The meaning of ‘already’ seems strongly linked to (particularly resultative) perfect meaning. *Already* is used as a resultative perfect marker by young children acquiring English as their first language (Traugott & Waterhouse 1969; Slobin 1973; both cited in Youssef 1990: 297).

Non-central features are:

- iii) it may extend its scope to stative predicates or property items, where it has the sense of ‘already’
- iv) since the form seems typically derived from a verb meaning ‘finish’, it may function as a marker of terminative aspect (as in: X has finished eating/building a house etc.). The terminative function may be separated from the completive function in that both are expressed through a different construction, e.g. low versus high pitch in Guyanese Creole (Winford 1993b: 54).

To repeat Youssef’s (2003) conclusion, creole completive markers may (additionally) develop language specific, idiosyncratic discourse functions and meanings.

5.3. *Ka* in Dutch Creole

5.3.1. *Ka* in the eighteenth century data

In the eighteenth century sources, *ka* occurs in all perfect uses discussed (see Table 5.2). At its first attestation in 1752, it already functions as a perfect:

- (19) *en gie jender Meer kracht en liefde voor Wandel*
 and give 2PL more strength and love COMPL walk
na bennen Sie paet die hem ka mack open voor ons
 inside 3S.POSSpath REL 3SG PRF make open for 1PL
 ‘and give you more strength and love to walk on His path that He has opened for us’
 (Domingo Gesoe 1752)

Below is an illustration of the various perfect uses of *ka*:

- (20) strong resultative
mi doe die weeraanabinn, tee em ka moe mee mi
 1SG do 3 again inside until 3SG PRF tired with 1SG
 ‘I put it back inside, until he was tired of me’
 (Oldendorp nd.b. in Stein 2010: 256)
- (21) weak resultative
as JESusa ka vollend deese Reden,
 when Jesus PST PRF finish this speech
 ‘when Jesus had finished this speech’
 (Böhner nd.a: 57)

- (22) experiential

Em ka doe mi eenmaal soo.
 3SG PRF do 1SG once so
 ‘He has done that to me once.’
 (Oldendorp nd.b. in Stein 2010: 256)

- (23) continuative

Neen, maer mie ka wees wakker lang Tit.
 No but 1SG PRF be awake long time
 ‘No, but I have been awake for a long time (already).’
 (Magens 1770: 55)

- (24) *En een Wief a wees daar, die a ka ha*
 and INDF woman PST be there REL PST PRF have
die Bloedloop al twaelf Jaar,
 DET dysentery already twelve year
 ‘And there was a woman there, who had had dysentery for twelve years already.’
 (Böhner nd.a: 69)

Perfect irrealis meaning is expressed by the combination of irrealis/future marker *sal* and *ka*:

- (25) *as die no ha wees, dat hem bin zoo gek, hem*
 if 3 NEG PST be that 3SG be so mad 3SG
sa ka praet lang tit na Tata.
 IRR PRF talk long time LOC father
 ‘If he weren’t so stupid, he would have talked to father a long time ago.’
 (Magens 1770: 74)

Sal ka may also have a future perfect reading, which has also been counted as an irrealis perfect:

- (26) *dat jender no sal vollend jenderReis door die Stadt*
 that 2PL NEG IRR complete 2PL journey through DET town
sender van Israel, tee die Menschen= Soon sal ka kom.
 3PL of Israel until DET human.son IRR PRF come
 ‘That you will not complete your journey through the towns of Israel, until the human Son will have come.’
 ([Auerbach] nd: 85–86)

Table 5.2: The functions of Dutch Creole *ka* in eighteenth century sources^a

	Con	Exp	Res (strong)	Res (weak)	Irrealis	Non- perfect ^b	Ind	Total
Letter 1752	-	-	-	1	-	-	-	1
Letter 1753	-	-	-	1	-	-	-	1
Oldendorp	-	4	2	2	-	-	-	8
3.2.1	3	132	89	85	7	9	4	329
Magens	3	14	36	17	1	1	1	73
Wold	-	5	1	3	-	-	-	9
AUER74	-	-	1	1	-	-	-	2
Böhner	-	11	7	3	-	2	3	26
Preface								
Magens bible	-	7	4	2	-	1	-	14
AUER84	-	8	-	-	-	-	-	8
3231 (NT)	4	145	82	69	5	1	-	306
3313 (OT)	-	10	15	20	3	-	-	48
LUND98	-	69	52	85	1	2	1	210
Barby ABC	-	13	-	-	-	-	-	13
	10	418	289	289	17	16	9	<u>1048</u>
		(40%)	(28%)	(28%)				

^a = In principle, this table contains all eighteenth century sources containing *ka*.

There are many more documents written by the missionary Johann Böhner (who wrote Gospel Harmony 1 (3.2.1) and Preface GH2 (3.2.2)), but these have not been included since this would extremely skew the distribution. Even though GH 1 (3.2.1) already contains the most occurrences of *ka* of all sources in Table 5.2, these counts represent less than one fourth of the total document. There are at least three more manuscripts of this size, not considered for this study.

^b = The non-perfect functions of *ka* are specified in Table 5.2a in Appendix F.

As discussed in §5.2.3 and §5.2.4, it is particularly interesting to see how a perfect marker combines with stative predicates (see Appendix F for additional examples of the various attestations below). In Table 5.3, we see that stative predicates may receive an experiential interpretation, just like non-stative events, in which the state is not asserted to hold beyond reference time:

- (27) *da vyf Mann joe a ka hab kabba, en diejeen,*
 FOC five man 2SG PST PRF have finish and the.one
die joe hab noe, die no ben joe Mann.
 REL 2SG have now 3 NEG be 2SG man
 ‘You have already had five husbands, and the one that you have now
 is not your husband.’
 ([Auerbach] nd: 36)

Table 5.3: Tempo-aspectual function of *ka* according to the stativity of the situation

	Con	Exp	Res (strong)	Res (weak)	Irrealis	Non- perfect ^a	Ind	Total
stative	10	40	-	-	-	7	3	60
perception verb	-	49	1	30	1	1	-	82
event	-	329	288	259	16	8	6	906
								1048

^a = Other functions of *ka* are specified in Table 5.3a in Appendix F

There are also cases where *ka* refers to simple perfective or non-perfective past situations. One category is the use of *ka* in a non-perfective past context, as in (28) where *a ka lief die Werld* refers to a past state. It is non-narrative, where the asserted speech time can be considered to be either Jesus at that point in the narrative of the Gospel of John or the time of writing of the Gospel of John. Whichever one is intended does not have any consequences for the interpretation.

What does matter is the reference time of (28). If we interpret *a gie* etc. as a perfective event, i.e., referring to Jesus's birth, then this is the most likely reference time for *a ka lief die Werld*. Under this interpretation, *a ka lief die Werld* could have a continuative interpretation, but I think the most likely interpretation is that it simply refers to a past state of which the subordinate clause is supposed to be the ultimate illustration that it was in effect at that time.

- (28) *Want alsoo Godt a ka lief die Werld,*
 because so God PST PRF love DET world
dat Em a gie Si Een gebooren Soon:
 that 3SG PST give 3S.POSS one born son
 'Because God loved the world so much, that He gave His only born Son.'
 (Böhner nd.a: 30)

Another such example is (29), where *no a ka wees bekled* etc. 'not be dressed as one of those [a lily]' refers to a characteristic of Solomon, thus a past state, not one that he experienced once or occasionally, as would be the experiential interpretation. Neither can (29) have a resultative interpretation, in which case *no a ka wees bekled* 'not having been dressed as one of those' would refer to a specific moment in Solomon's life where it would be a resultant state of a past event of him (not) dressing up.

- (29) *En Mi le see jender, dat ook Salomo na*
 and 1SG IPFV say 2PL that also Solomon LOC
allegaar si Heerlikheit no a ka wees bekled, as
 all 3S.POSS glory NEG PST PRF be dress as
Een van die selve.
 one of DET same
 ‘And I say to you, that also Solomon in all his glory was not dressed
 as one of those.’ (Böhner nd.a: 53)

All examples of *ka* with a past non-perfective interpretation occur in Moravian missionary Böhner’s translation of the Gospel Harmony. The predicate verbs used are *vind* ‘find’, *hoor* ‘hear’, *lief* ‘love’, *wees* ‘be’, *wil* ‘want’, *lat af* ‘stop’.

Example (29) contains a peculiarity that we only find in the missionary sources, i.e., a passive formed by an auxiliary verb and a past participle. Oldendorp reports that Dutch Creole does not have separate passive forms (2000: 698). About the use of the passive, he says:

All these ways of using passives [i.e., paraphrasing with active constructions, the use of auxiliaries such as *kom* ‘become’ and the perfect marker *ka*] are sufficient in everyday life, particularly for the slaves among each other, but sometimes not sufficient for everything that one has to discuss with someone – and mainly for religious things, the translation of the Scripture and psalms – when one wants to express oneself clearly, concisely and without wasting words. For that purpose, many passives have been introduced by means of the words *woord* or *woor* become, and *wees* be, with which one has had to use as a consequence Dutch or German passive past participles.⁸⁶
 (Oldendorp 2000: 699)

Thus, we see the Dutch past participles *geloofd* ‘praised’ – which is *geloofd* in the standardized spelling of contemporary Dutch – in (30) and *gegeven* ‘given’ (Dutch spelling *gegeven*) in (31). A typical Dutch past participle has *ge-* prefixed to the stem and *-d/-t* suffixed for weak verbs, as in (30), and *-en* for strong verbs, as in (31). Strong verbs may have a vowel change in the

⁸⁶ “Alle diese Arten, **passive** zu reden, sind im gemeinen Leben, sonderlich den Negern unter sich selber, zwar hinlänglich, aber doch zu allem, was oft mit jemand zu handeln ist – und hauptsächlich zu geistlichen Sachen, zur Übersetzung der heiligen Schrift und Kirchenlieder – bisweilen nicht hinreichend, wenn man alles recht deutlich, kurz und ohne Umschweife geben will. **Daher sind manche ordentliche Passiva mit Hülfe der Wörter *woord* oder *woor* werden, und *wees* sein, eingeführt worden, wozu man denn auch notwendig holländische oder deutsche Participia der vergangenen Zeit im Passivo hat gebrauchen müssen.**”

stem, as with *bedrogen* ‘deceived’ in (32) which is the past participle of Dutch *bedriegen* ‘deceive’.

- (30) *Geloov-t wees die Heer Godt*
 praised be DET Lord God
 ‘Praised be the Lord God’
 (Lund 1798: 58)
- (31) *Want die Wet ben ge-geev-en door Mosem*
 because DET law be given through Moses.ACC
 ‘Because the law has been given by Moses.’
 (Böhner nd.a: 2)
- (32) *En as Herodes a kik, dat em a wees*
 and when Herod PST see that 3SG PST be
bedrogen van die Wies (Mann) sender
 deceived of DET wise man 3PL
 ‘And when Herod saw that he had been deceived by the wise men’
 (Böhner nd.a: 14)

Intentional or not, in a handful of cases, the participle suffix is omitted:

- (33) *soo as die a wees ge-ordineer na die Wet van*
 as 3 PST be decreed LOC DET law of
die HEER
 DET Lord
 ‘as it was decreed in the Lord’s law.’
 (Böhner nd.a: 16)
- (34) *Joe Naam wees ge-heilig!*
 2SG name be hallowed
 ‘Hallowed be Thy name!’
 (Lund 1798: 119)

The passive participle is always passive and does not function as an active perfect. The auxiliaries correspond to those used in Dutch: forms of the verb BE are used for passive perfects (i.e., *ben/bin* and *wees* in Table 5.4), while forms of the verb BECOME are used for passive presents or simple pasts (thus, *wort* and *kom* in Table 5.4).

Table 5.4: The auxiliaries used with past participles

Auxiliaries	Wold	321A	AUER84	3.3.1.3 (OT)	3.2.3.1 (NT)	LUND98	Total
<i>ben/bin</i> ‘be’	1	29	3	1	42	2	78
<i>wees</i> ‘be’	-	24	-	1	28	2	55
<i>staan</i> ‘stand’	-	11	-	-	3	-	14
<i>ka</i>	-	-	-	-	-	4	4
Perfect (subtotal)	1	64	3	2	73	8	151
<i>wort</i> ‘become’	2	61	3	3	68	-	137
<i>kom</i> ‘become’	-	1	-	-	-	1	2
<i>krieg</i> ‘get’	-	-	-	-	1	-	1
Total	3	126	6	5	142	9	291

The passive participle is also used as an attributive adjective, as a noun, and adjoined to a noun without an auxiliary (see Table 5.5).

Table 5.5: Perfect past participles in the eighteenth century data

Source	Year	Passive	Adjective	Nominal	Adjunct	Total
WOLD.ABB	1770	3	-	-	-	3
Böhner 3.2.1A	±1770	126	1	9	3	148
AUER84	1784	6	1	-	-	7
3.3.1.3 (OT)	1795	5	5	-	-	10
3.2.3.1 (NT)	±1795	142	11	-	12	165
LUND98	1798	9	3	-	3	15
Total		291	30	9	18	348

Ka also combines with the past marker *(h)a*. A perfect has past time reference when its reference time or evaluation point lies before speech time. Because Dutch Creole allows zero pasts in general (Chapter 3/van Sluijs 2014a), we expect there to be variation between *(h)a* and \emptyset before *ka* in past perfect contexts. In Chapter 3/van Sluijs (2014a), I conclude that in contexts with absolute past time reference, there is a preference to use past marker *(h)a*. This preference is also observable in combination with *ka* in narrative contexts (see Table 5.6), where there is past time reference by default.

Table 5.6: Past time reference marking ((h)a versus Ø) before ka in eighteenth century narrative contexts

	Narrative	%	Non-Narrative	%	Indeterminate	%	Total
(h)a	184	74	240	30	3	75	427
Ø	64	26	556	70	1	25	621
Total	248		796		4		1048

- (35) *En as sender a ka loop wee, Kik, da die Engel van*
 and when 3PL PST PRF go away look there DET angel of
die HEER a verskienna Joseph na Droom en a see
 DET Lord PST appear LOC Joseph LOC dream and PST say
 ‘And when they were gone, look, there the Lord’s angel appeared to
 Joseph in his dream and said’
 (Böhner nd.a: 14)

In non-narrative contexts, the post state of the perfect is often asserted to hold at speech time, in which case we can think of it as a perfect with present time reference (or a present perfect):

- (36) *Goejen dag Koffee! goejen dag Tete! jender ka kom weeraan?*
 good.day Kofi good.day Tete 2PL PRF come again
 ‘Good day, Kofi! Good day, Tete! You have come again?’
 (Oldendorp nd.b. in Stein 2010: 252)

There is only past time reference when the post state is asserted to have held before speech time or another point of reference. This is specified in Table 5.7 so that we are able to evaluate the use of (h)a versus Ø in non-narrative contexts as well.

Table 5.7: Frequency of (h)a ka in non-narrative contexts in eighteenth century data

Resultant state holds (at)	Böhner	%	Others	%
speech time (ST)	68/95	72	7/250	3
characteristically (including ST)	0/2	0	0/14	0
before ST (contextual RT)	0/0	-	3/6	50
before ST or RT	4/5	80	4/11	36
irrealis RT	4/10	40	2/12	17
indeterminate	3/4	75	0/3	0
no resultant state	115/134	86	30/250	12
Total	194/250	78	46/544	8

Here we see that the author Böhner, the missionary who wrote a number of Gospel Harmony translations, differs significantly from all other authors. Whereas the other authors hardly use *(h)a* before *ka* in non-narrative contexts at all, Böhner uses *(h)a* extremely frequently even in those contexts where it does not seem appropriate, i.e., where the post state is asserted to hold at speech time, as in (37). This suggests that Böhner associates *a ka* with perfect meaning in general rather than with past perfect meaning specifically.

- (37) *want mi ben oud, en mi Wief (Elisabeth) a*
 because 1SG be old and 1SG wife Elisabeth PST
ka kom na ouwe Dag-en
 PRF come LOC old day-PL
 ‘because I am old, and my wife (Elisabeth) has come of old age’
 (Böhner nd.a: 4)

5.3.2. *Ka* in the nineteenth and twentieth century data

In the introduction to §5.2, I discussed a few slightly divergent analyses of the function of Dutch Creole *ka*. There we already concluded that virtually all definitions provided were compatible with a *perfect*. As a perfect, *ka* occurs with strong and weak resultative and experiential meaning:

- (38) strong resultative
wa kaa bring ju hi?
 what PRF bring 2SG here
 ‘What has brought you here?’
 (Joshua; de Josselin de Jong 1926: 17)
- (39) weak resultative
So weni am a kaa kurí astə di andə een
 so when 3SG PST PRF run after DET other one
 ‘So when he had run after the other one’
 (Joshua; de Josselin de Jong 1926: 20)
- (40) experiential
Sowee dak mi sowee jaa mi bi hi, mi nooit kaa ki een
 so.many day with so.many year 1SG be here 1SG never PRF see INDF
man liki ju,
 man like 2SG
 ‘In all those many days and many years that I have been here, I have never seen a man like you.’
 (Joshua; de Josselin de Jong 1926: 17)

Table 5.8 confirms the overall perfect character of *ka*, since it functions as a perfect in 88% of the cases.

Table 5.8: Functions of nineteenth/twentieth century *ka*^a

	Exp	Res (strong)	Res (weak)	Irr	Pfv	Past/ Prs	Ind	Total
Pontoppidan 1881	-	6	1	-	-	-	1	8
A. Magens 1883	1	5	3	1	2	2	-	14
dJdJ 1926	37	228	95	7	20	7	13	407
Nelson 1936	2	3	1	-	-	-	3	9
Total	40	242	100	8	22	9	17	438

^a = See Appendix G for additional examples of the various categories distinguished

Perfect irrealis meaning is expressed by *sa ka*, just as in the eighteenth century data:

- (41) *as ju a see mi, ju kaa dif di,*
 if 2SG PST say 1SG 2SG PRF steal 3.INAN
am noit sa kaa kri di.
 3SG never IRR PRF get 3.INAN
 ‘If you had told me that you had stolen it, he would never have got it.’
 (Roberts; de Josselin de Jong 1926: 40)

In addition, *sa ka* is used as a modal perfect irrealis that corresponds to English *should have*:

- (42) *Am nooit sa kaa gi di a Stééndifi.*
 3SG never IRR PRF give 3.INAN LOC Ground.Dove
 ‘She should never have given it to Ground Dove.’
 (Roberts; de Josselin de Jong 1926: 40)

Unlike in the eighteenth century data, there are no nineteenth/twentieth century occurrences of continuative *ka*. The de Josselin de Jong (1926) data contain one example of an experiential perfect where the right boundary coincides with speech time. Although this may appear identical to a continuative (a state holding in the past and up to reference time), it is not. Note for example that cases such as (43) are possible in Dutch, as its translation (44) illustrates (see Boogaart 1999: 413ff for discussion), even though Dutch does not allow continuative perfect readings, where it uses a present tense instead.

- (43) *mi kaa wees mi ju lang gənu*
 1SG PRF be with 2SG long enough
 ‘I have been with you long enough.’
 (Joshua; de Josselin de Jong 1926: 19)

- (44) *Ik ben lang genoeg bij je geweest.*
 I am long enough with you been
 ‘I have been with you long enough.’

There are also examples of experiential *ka* with a stative predicate, where the state does not hold at reference time:

- (45) *So ons altit a kaa ha gut fo jet.*
 so 1PL always PST PRF have thing COMP eat
 ‘So we always had things to eat.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 31)

Table 5.9: Functions of *ka* according to the stativity of the predicate

	Exp	Res (strong)	Res (weak)	Irr	Pfv	Past/ Prs	Ind	Total
stative	7	-	-	-	1	8	2	18
perception verb	12	-	11	-	-	-	-	23
event	21	242	89	8	21	1	15	397
								438

Although there are no continuative perfects in the nineteenth and twentieth century data, *ka* does occur with stative predicates that refer to a state holding at reference time, as shown in Table 5.9. Unlike with continuative perfects, these do not refer to a past state that continues into the present. They only occur with posture verbs:

- (46) *Am kaa lei a gron loo slap mi shi twee kin.*
 3SG PRF lie LOC ground IPFV sleep with 3S.POSS two child
 ‘She’s lying on the ground sleeping with her two children.’
 (Joshua; de Josselin de Jong 1926: 13)

- (47) *Am a ki di gunggu fet a kaa hang a*
 3SG PST see DET big fat PST PRF hang LOC
di heart-string fa di kui.
 DET heartstring of DET cow
 ‘He saw the big fat hanging at the cow’s heartstring.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 29)

- (48) *Dann een van di frow sender wa ka stann desbi*
 then one of DET woman 3PL REL PRF stand near
di mænschi ha sæ:
 DET girl PST say
 ‘Then one of the women who was standing near the girl said’
 (Magens 1883: 131)

In (46), it is possible to see *lei* not as a stative but as an inchoative posture verb meaning ‘lie down’. However, in the context of the narrative this change-of-state interpretation is quite unlikely: it is said by one of the Fates, who has just used the eye to look at the Gorgon, to report about its whereabouts. For (47) and (48) the change-of-state interpretation is not available at all.⁸⁷ The fact that *ka stan* ‘stand’ may occur in progressive constructions, as illustrated in (49) *ki een frou ... loo ki boo am* ‘saw a woman ... looking at him’, supports that it refers to a simple state.

- (49) *Een dag ham a loo□ slap, ham a drom, am*
 one day 3SG PST IPFV sleep 3SG PST dream 3SG
a ki een frou kaa stan loo ki boo am.
 PST see INDF woman PRF stand IPFV see on 3SG
 ‘One day he was sleeping, he was dreaming, he saw a woman stand and look at him.’
 (Joshua; de Josselin de Jong 1926: 12)

This use of *ka* is found in two independent sources: Magens (1883) and de Josselin de Jong (1926). In de Josselin de Jong (1926), it is used by three different speakers (out of nine), which further corroborates that this construction is not idiosyncratic to one speaker but more generally used in nineteenth and twentieth century Dutch Creole.

In the eighteenth century, there is a continuative example of *ka lee* ‘lie’, presented in (50). The difference between (50) and (46) is that the former explicitly refers to a past state continuing into the present, whereas the latter only refers to a present state (as it is the immediate report of someone’s observation, in direct speech mode). Both have in common that they are not the resultant state of a change-of-state.

⁸⁷ The verb *stan* ‘stand’ has not been attested with a change-of-state interpretation, unlike the verbs *lei* ‘lie/lay down’ and *set* ‘sit (down)’. *Stan* ‘stand’ does not combine with imperfective or inchoative *lo*. The corresponding inchoative verb is *hopo* ‘rise, get/stand up’.

- (50) *En een Mensch a wees na daar, die a ka lee*
 and INDF human PST be LOC there REL PST PRF lie
al acht en dertig Jaar siek na daar.
 already eight and thirty year ill LOC there
 ‘And there was someone there, who had been lying there ill for thirty-eight years already.’
 (Böhner nd.a: 36)

As discussed in §5.2.3, Bybee et al. (1994: 76) found that perfects derived from dynamic verbs meaning ‘finish’ refer to present states when combined with stative predicates. This is also the case for Sranantongo post verbal *kaba* (as in (16) reprinted below as (51)), and *don* in Guyanese Creole (as we saw in (17) reprinted below as (57)). A major difference between the constructions in (51) and (52) and Dutch Creole *ka* in (46)–(48) is that the former have the sense of ‘already’, which is completely absent in the Dutch Creole examples. Furthermore, the type of predicate differs. The predicates in (51) and (52) are property items, while Dutch Creole *ka* only refers to current states with posture verbs.

- (51) *want yu si fa yu fini fini kba.*
 because you see how you fine fine already
 ‘because you see how you’re skinny already’
 (Winford 2000: 435)
- (52) *Shi don so fat, bot shii stil waan iit ten taim a dee.*
 ‘She’s already so fat, but she still wants to eat ten times a day.’
 (Winford 1993b: 50)

Sabino (1986: 51) suggested that Dutch Creole *ka* is an “anterior marker” as defined in Givón (1982: 121). Here, Givón (1982: 121) in turn adopts Bickerton’s (1975: 7) definition of an anterior, i.e., “past-before-past for action verbs and simple-past for state verbs”.⁸⁸ Givón adds to this that the anterior “marks *out-of-sequence* clauses in the narrative, specifically those which ‘look-back’ and relate events that occurred *earlier than the preceding clause in the narrative*” (1982: 121).

The hypothesis that Dutch Creole *ka* is an anterior marker as defined above would be supported only if *ka* occurred predominantly in narrative

⁸⁸ The first part of the definition of anterior (“past-before-past for action verbs and simple-past for state verbs”) has been shown to be invalid in its strong form (e.g., Sankoff 1990 discussing Tok Pisin and Sranan), and has been reformulated by Bickerton himself as referring to a situation that is asserted to have occurred “prior to the current focus of discourse” (1981: 91).

contexts, and of those predominantly in out-of-sequence clauses. An example of *ka* in an out-of-sequence clause is given in (53). Sentences (53a–e,g) report a series of perfective events, all marked with preverbal past marker *a*. Sentence (53f) is “out-of-sequence” because *kaa kri di* refers back to the event in (53b).⁸⁹

- (53) a. *Den am a loo.*
 ‘Then he went.’
 b. *Am a ris,*
 ‘He lifted,’
 c. *am a move dā steen.*
 ‘he moved the rock.’
 [...]
 d. *Ham a skreew mi een sterək stem.*
 ‘He shouted with a powerful voice.’
 [...]
 e. *Am a fin shi maa.*
 ‘He found his mother.’
 f. *Am kaa kri di.*
 ‘He had managed.’
 g. *Shi maa a bos kris.*
 ‘His mother started crying.’
 (Joshua; de Josselin de Jong 1926: 11)

Anticipating the discussion, there are quite a number of cases where *ka* does not mark out-of-sequence clauses in the narrative contexts of the nineteenth/twentieth century data. In these cases, Dutch Creole *ka* seems to behave like Vernacular Liberian English (VLE) *feni* (from English *finish*) according to Singler’s (1999) description. Basilectal VLE *feni* “signals the **preservation** of temporal order”, which is in that respect “precisely the opposite [of a marker of anteriority]” (Singler 1999: 345).

In (54), I present an example of *ka* preserving the temporal order of the narrative. Sentences (54a–b,d) represent a series of perfective situations marked by past marker *a*. In (54c), *ka* does not refer to an earlier situation, but one that occurred at that point in the narrative.

⁸⁹ Sentence (53f) is of course not really out of sequence, because it refers to the situation of the boy reporting to his mother that “he had managed” to lift the rock. Logically, the use of *ka* indicates that it is relevant at that point in the narrative to refer to an earlier situation.

- (54) a. *Ham a set, am a jet shi big ful.*
 3SG PST sit 3SG PST eat 3S.POSS belly full
 ‘He sat down, he ate his belly full.’
- b. *Den am a see: twee bini di saku!*
 then 3SG PST say two inside DET bag
 ‘Then he said: “Two into the bag!”’
- c. *Gou liki wilik di taul a kaa loo.*
 quick like lightning DET table PST PRF go
 ‘The table had gone as fast as lightning.’
- d. *Den am a nee di duksak.*
 then 3SG PST take DET bag
 ‘Then he took the bag.’
 (Joshua; de Josselin de Jong 1926: 24)

Singler (1999) compares the frequency of temporal order preserving use of *feni* across basilectal and mesolectal VLE and the proportion of perfect use of *feni*. He concludes that in the basilectal variety “the event marked by *feni* occurred after the event described in the previous clause – or was a recapitulation of it – and occurred before the event in the subsequent clause” (Singler 1999: 345). Dutch Creole *ka* behaves exactly alike in cases like (54c). By contrast, Singler concludes that mesolectal VLE *feni* is first and foremost a perfect (1999: 345). In tables 5.10–5.12, I reproduce the VLE data provided by Singler (1999: 344) and add the corresponding Dutch Creole data.

Table 5.10: What percentage of all uses occurs in temporally ordered discourse events, i.e. narratives, procedurals, or hypotheticals (adapted and elaborated from Singler 1999: 344)^a

VLE-bas <i>feni</i>	54/66	82%
VLE-mes <i>feni</i>	36/67	54%
Dutch Creole <i>ka</i>	155/438	35%

^a = I have not distinguished procedurals from narratives for the nineteenth and twentieth century Dutch Creole data, since there are hardly any texts that qualify as such. Singler excludes “reported speech within, for example, a narrative” (1999: 343). Likewise, I have coded reported speech as “non-narrative”. For me, this overrides the status of hypothetical clauses, so that the percentage for Dutch Creole *ka* does not include hypothetical non-narrative clauses.

Table 5.10 shows that the far majority of occurrences of Dutch Creole *ka* are in non-narrative contexts. This is sufficient to show that an anterior marker as defined above is not an adequate characterization of *ka*.

Table 5.11 further supports this conclusion by showing that in narrative contexts the distribution of *ka* between order-preserving and order-disrupting or “out-of-sequence” clauses is exactly fifty-fifty. This adequately shows that Dutch Creole *ka*’s function in narratives is neither specifically order-preserving nor -disrupting.

Table 5.11: Of those occurrences in temporally ordered discourse events, how many of them conform to an order-preserving sequence?

VLE-bas <i>feni</i>	50/54	93%
VLE-mes <i>feni</i>	20/36	56%
Dutch Creole <i>ka</i>	77/155	50%

Table 5.12 then confirms that Dutch Creole *ka* is first and foremost a perfect, just like mesolectal VLE *feni*. The order-disrupting and -preserving use are both compatible with perfect meaning.

Table 5.12: Of all uses, how many of them are Perfect^a?

	VLE-bas	VLE-mes	Dutch Creole
order-preserving	26/50 (52%)	16/20 (80%)	53/77 (69%)
not order-preserving	14/16 (88%)	43/47 (91%)	340/361 (94%)
<i>narrative</i>			68/78 (87%)
<i>indirect reported speech</i> (in narrative)			97/100 (97%)
<i>non-narrative (incl. direct reported speech)</i>			175/183 (96%)
Total	40/66 (61%)	59/67 (88%)	393/438 (90%)

^a = I have counted as Perfect: experiential, strong and weak resultative, and irrealis perfect uses of *ka*, and those cases that were indeterminate between any of these

If we take a neutral stance towards its meaning in individual cases, *ka* could be interpreted to refer to a perfective situation in an example such as (54c). However, since Table 5.12 shows that *ka* is predominantly perfect overall, it is perhaps safer to see *ka* here as establishing a shift in focus from the event itself to its post-state, i.e., the state where the event has finished. As such, *ka* does seem to function as a perfect marker, despite the fact that the event is in-sequence in the narrative. Nevertheless, these temporal order preserving contexts are a grey area where perfective and perfect interpretations may overlap. A perfect (i.e., a post-state) interpretation is most probable in

clauses with a temporal complementizer such as *weni* ‘when’, *astu* ‘after’, or *tee* ‘until’, as in (55).

- (55) *So weni di jung a kaa loo zeil, di kining ha*
 so when DET boy PST PRF go sail DET king PST
mangkée nee di maa fan faadə Jusiəs.
 want take DET mother of father Acrisius
 ‘So when the boy had gone sailing, the king wanted to take father
 Acrisius’s mother.’
 (Joshua; de Josselin de Jong 1926: 12)

Only in those cases where a post state reading is infelicitous or very improbable, as in (56a–b) and (57), I have counted *ka* as referring to a perfective situation. It is not unusual for a perfect marker to develop into a perfective marker (e.g. Dahl 1985: 139; Bybee et al. 1994: 81), so the fact that a perfect is sometimes used to refer to perfective situations may be an indication that it is in “an intermediate stage” of development (Bybee et al. 1994: 78).

A relevant example is the multifunctionality of the Dutch past perfect construction: it may function as a “perfect-in-the-past” or as a “simple past in a past context” (Oversteegen & Bekker 2002: 119–120). Although the perfective and past state occurrences of *ka* are infrequent overall, Tables 5.13 and 5.14 show that they particularly occur in narrative contexts with their inherent past time reference frame.

- (56) a. *So weni Tekoma a ho am a see so,*
 so when Ntikuma PST hear 3SG PST say so
am kaa folək am.
 3SG PRF follow 3SG
 ‘So when Ntikuma heard that he had said so, he had followed him.’
 (Roberts; de Josselin de Jong 1926: 37)
- b. *So loo kook di jamus, dan kaa du sout a di.*
 so go cook DET yam then PRF do salt LOC 3.INAN
 ‘So he went and cooked the yam, then he had put salt on it.’
 (Roberts; de Josselin de Jong 1926: 37)
- (57) *Weni am a kom it, nu am kaa pok Fergí abini nu.*
 when 3SG PST come.out.now 3SG PRF poke Pig inside now
 ‘When he had come outside, he had poked Pig inside now.’
 (Roberts; de Josselin de Jong 1926: 39)

Table 5.13: Nineteenth/twentieth century *ka* in narrative contexts

	Perfect	Irrealis perfect	Perfective	Past	Indeterminate	Total
Pontoppidan 1881	-	-	-	-	-	-
A. Magens 1883	3	-	-	2	-	5
dJdJ 1926	212	4	19	6	8	249
Nelson 1936	1	-	-	-	-	1
	216	4	19	8	8	255

Table 5.14: Nineteenth/twentieth century *ka* in non-narrative contexts

	Perfect	Irrealis perfect	Perfective	Present	Indeterminate	Total
Pontoppidan 1881	7	-	-	-	1	7
A. Magens 1883	6	1	2	-	-	9
dJdJ 1926	148	3	1	1	5	158
Nelson 1936	5	-	-	-	3	8
	166	4	3	1	9	183

Finally, Dutch Creole *ka* and its predicate can be adjoined to the object of a preceding perception verb, as in (58), or a verb such as *ha* ‘have’, as in (59).

- (58) *am a ki een frou kaa stan loo ki boo am.*
 3SG PST see INDF woman PRF stand IPFV see on 3SG
 ‘he saw a woman stand and look at him.’
 (Joshua; de Josselin de Jong 1926: 12)

- (59) *So am a ha een groot dip gat kaa dig undu gron*
 so 3SG PST have INDF big deep hole PRF dig under ground
a da am a ha si sougut kaa stikúí.
 FOC there 3SG PST have 3S.POSS salt.meat PRF hide
 ‘So he had dug a big hole under ground, and there he had hid his
 salted meat.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 27)

Chapter 4 discusses a parallel construction with progressive *lo*. The fact that both perfect *ka* and progressive *lo* may occur in one and the same construction supports the assumption that both refer to a state. A state can be predicated of a nominal, as is what happens in (58). In (59) however, the construction seems to be a step further. Here, *kaa dig undu gron* ‘dug under

ground’ and *kaa stikúi* ‘hidden’ seem to be part of the verbal predicate with *een groot dip gat* ‘a big deep hole’ and *si sougut* ‘his salted meat’ being their objects respectively. Periphrastic *ha ... kaa* as in (59) differs from non-periphrastic *kaa* in that it puts focus on the syntactic object. See Table 5.15 for an overview of the attested preceding verbs. Oldendorp (2000: 699) reports an eighteenth century example of this construction:

- (60) *mi a kik em ka morss goe mee slaa*
 1SG PST see 3SG PRF crush well with beating
 ‘I have seen him all beaten up.’⁹⁰

Table 5.15: Predicates preceding adjoined *ka* in twentieth century sources

	Preceding verb	of which occurs with a locative adverbial		%
locative	<i>bi</i> ‘be’	1	1	100
	<i>bin</i> ‘be’	1	1	100
	<i>wees</i> ‘be’	4	4	100
	<i>bli</i> ‘stay’	6	3	50
perception	<i>fin</i> ‘find’	5	1	20
	<i>ki</i> ‘see’	2	-	-
possession	<i>ha</i> ‘have’	5	1	20
	<i>kri</i> ‘get’ ⁹¹	1	-	-
existential	<i>di ha</i> ‘there is’	1	-	-
dynamic	<i>kreewit</i> ‘shout’	1	-	-
	<i>rol</i> ‘roll’	1	1	100
Total		28	12	

Note how the construction with *ha* ‘have’ in (59) is reminiscent of the construction that the Western European HAVE perfect developed from. The verb HAVE at first indicated possession of its object to which a past participle was adjoined. At a certain point, “the stage can be reached when [the past participle] ceases to be felt as a participle qualifying the object and becomes instead part of a verbal periphrasis. When this happens, the passive quality of the participle gives way to an active conception, since the participle now helps to express the action of the subject” (Lockwood 1968: 115).

The same is true for *ka* constructions corresponding to the subject of the clause, which is located in space via *bi/bin/wees* ‘be’ plus a locative adverbial, as in (61), or *bli* ‘stay’, as in (62). The subject of *bli* or *bi/bin/wees* is also the subject of the *ka* predicate, which may be transitive or intransitive,

⁹⁰ “[I]ch habe ihn sehr zerschlagen gesehen[.]” (Oldendorp 2000: 699)

⁹¹ See example (h) in Appendix G for an example of this construction.

unless the *ka* predicate refers to a passive state, as in (61). Thus, in examples such as (61), *bi/bin/wees* with *ka* plus its predicate seems to be constructed in the same way as a Dutch perfect, constructions that we also found in the eighteenth century missionary sources. Examples such as (62), however, indicate that the construction is not limited to passives.

- (61) *Tekoma a wes abini di groot darm kaa stikúi.*
 Ntikuma PST be inside DET big intestine PRF hide
 ‘Ntikuma was hidden inside the big intestine.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 29)

- (62) *So dā man a bli kaa mata shi wif kaa kri*
 so DET man PST stay PRF kill 3S.POSS wife PRF get
am-self bini een fosiku faian.
 3SG-self into INDF enormous trouble
 ‘So the man remained having killed his wife, having got himself into big trouble.’
 (Roberts; de Josselin de Jong 1926: 48)

Bli + ka is hypothesized to derive from Danish *blive* ‘become, get’ which is the auxiliary used to form the Danish passive (Stolz 1984: 39). This may very well be the construction’s origin, but it is noteworthy to point out that examples as (62) show that Dutch Creole *bli ka* does not correspond in use to the Danish passive construction with *blive*. If we assume the Danish origin of *bli + ka*, then *bli* has been reanalyzed into Dutch Creole *bli* ‘stay/keep on’ from Dutch *blijf* ‘stay/keep on’ also before *ka*, and consequently *ka + predicate* is interpreted as modifying the subject of the now locative verb *bli*.

5.3.3. Conclusion

So far, I have not directly addressed the issue that I introduced in §5.2: is *ka* a (creole) completive or a perfect marker? Let us recall the features that seem to be typical for a creole completive, as discussed in §5.2.4:

- i) it indicates that a non-stative event is finished with implications for reference time (resultative perfect)
- ii) it has a sense of ‘already’

As we have just seen in §5.3.1 and §5.3.2, Dutch Creole *ka* may function as a (weak or strong) resultative perfect, as defined in i), but is much broader in use. Thus, Dutch Creole *ka* is in no way as specialized in perfect function as the creole completive seems to be. Moreover, *ka* does mostly not allow the

(additional) sense of ‘already’, as illustrated in (63)–(65).⁹² Therefore, I conclude that *ka* is a perfect rather than a creole completive marker.

- (63) *Ham a nooit kaa ri kabái sins ham kaa gibóó.*
 3SG PST never PRF ride horse since 3SG PRF be.born
 ‘He had never (*already) ridden a horse since the day that he was (*already) born’
 (Joshua; de Josselin de Jong 1926: 21)
- (64) *Huso aⁿ ka doot?*
 how 3SG PRF die
 ‘How did it [the horse] (*already) die?’
 (Joshua; de Josselin de Jong 1926: 16)
- (65) *Jan, dā meestu pushi ka dot!*
 John DET master cat PRF die
 ‘John, the master’s cat is dead!’
 (Roberts; de Josselin de Jong 1926: 64)

Thus, this section has extensively shown that Dutch Creole *ka* is broad in use and therefore most aptly termed a perfect marker. Yet, in the twentieth century data (and particularly in the de Josselin de Jong 1926 narratives) Dutch Creole *ka* is most frequently used as a strong resultative, as in (65).

5.4. *Kaba* in Dutch Creole

5.4.1. *Kaba* in the eighteenth century data

Kaba ‘finish’ occurs in various functions in a number of Dutch Creole sources (see Appendix H for additional examples). The Moravians use the spelling *kabba*, although Böhner alternates between *kabba* and *kaba* in his translation of the OT (3.2.5). Oldendorp (2000: 709) writes *kabaa*. The Danish authors write *kabae*, with the exception of Lund (1798), who writes *kaba*. It occurs in three different syntactic positions, correlating to its functions:

⁹² In (65), the additional sense of ‘already’ is not possible given the context. In a different context, the sense of ‘already’ might be possible. Thus, it is not my contention that *ka* does not allow this additional sense at all. In fact, I suspect that this may be so, given that the adverb *areesal* ‘already’ is so infrequent in the (nineteenth/twentieth century) data.

- a) as an independent lexical verb, meaning ‘finish’ (but not in combination with other verbs):

(66) *Mi ka kabae mi Werk en Saek*
 1SG PRF finish 1SG work and thing
 ‘I have finished my work and things’
 (Anonymous 1823: 129)

- b) as a preverbal lexical verb, indicating termination of an event (i.e., ‘finish’):

- does not occur in the eighteenth century data

- ci) post verbal, indicating termination of an event:

(67) *Toen Em a ka praat noe kabba, da Em a*
 when 3SG PST PRF talk now finish there 3SG PST
see na Simon
 say LOC Simon
 ‘When He was finished talking, He said to Simon’
 ([Auerbach] nd: 47)

- cii) post verbal, indicating that the event is performed to completion, with the object being totally consumed or, totally affected

(68) *dat die a sal believ Godt, vor b*eder*v mi kaba*
 that 3 PST IRR please God COMP ruin 1SG finish
 ‘that it would please God to ruin me completely’
 (Böhner nd.c: 186)

There is one example, where the sense of *completion* is used in the sense of it being irreversible (not so much by nature, but because of the authority of the speaker):

(69) *Pilatus a antwood: Wat mi a ka skrief,*
 Pilate PST answer what 1SG PST PRF write
die mi ka skrief kabba.
 3 1SG PRF write finish
 ‘Pilate answered: “I have written what I have written”’.
 (Böhner nd.a: 269)

d) post verbal, as an adverb meaning ‘already’:

- (70) *Die klein Majis ha plant kabae?*
 DET small corn PST plant finish
 ‘Has the small corn already been planted?’
 (Magens 1770: 76)

e) *kaba* also occurs as part of the predicate, combined with a copula, such as *wees/ben* ‘be’ and *kom* ‘become’, and with the verbs *maak* ‘make’ and *loop* ‘go’. It can take on a number of related meanings which seem to be derived from the lexical meaning ‘finish’:

ei) ‘be finished’, ‘be completed’ (compare Dutch adverbial *af* ‘finished’; German *fertig* ‘ready’; Danish *færdig* ‘ready’)

- (71) *Wat, Ju ka maek die Kleet kabae?*
 what 2SG PRF make DET dress finish
 ‘What, you finished the dress?’
 (Magens 1770: 60)

eii) ‘be finished’, ‘be depleted’ (compare Dutch adverbial *op* ‘finished’; German *alle* ‘finished’)

- (72) *En as noe die Water na die Vlasch a wees kaba*
 and when now DET water LOC DET bottle PST be finish
 ‘And when the water in the bottle was finished (= there was no more left)’ (Böhner nd.c: 62)

eiii) ‘be gone’, ‘be destroyed’; it also combines with the preposition *met* ‘with’ in the sense ‘be over (with someone or something)’, i.e. ‘be dead/destroyed’ or ‘going to be dead/destroyed’.

- (73) *Sender dood, en *d*an ben sender Wieshiet kaba.*
 3PL die and then COP 3PL wisdom finish
 ‘They (will) die, and then their wisdom will be gone.’
 (Böhner nd.c: 183)

5.4.2. *Kaba* in the twentieth century data

Contrary to the eighteenth century situation, twentieth century *kaba* – invariably spelled by de Josselin de Jong (1926) according to its pronunciation: *kabáá* /ka’ba/ – occurs particularly as a lexical verb. Below is

an overview of the functions of twentieth century *kaba* using the same classification as for the eighteenth century data.

- a) as an independent lexical verb, meaning ‘finish’ (but not in combination with other verbs):

(74) *Me denk ons ska kaba nu*
 1SG think 1PL PRF finish now
 ‘I think we are done now.’
 (Nelson 1936: 5)

- b) as a preverbal lexical verb, indicating termination of an event (i.e., ‘finish’):

(75) *weni am a kabáá stam də sout*
 when 3SG PST finish pound DET salt
 ‘When he was finished pounding the salt’
 (Roberts; de Josselin de Jong 1926: 38)

Preverbal lexical *kabáá* occurs twice with the complementizer *fo*:

(76) *Sinu a dig tee sinu a kabáá fo dig di ple.*
 3PL PST dig until 3PL PST finish COMP dig DET place
 ‘They dug until they were done digging the place.’
 (Roberts; de Josselin de Jong 1926: 58)

- ci) post verbal, indicating termination of an event:

(77) *Dan sinu a see am mushi danki fodima weni*
 then 3PL PST say 3SG much thank.you because when
een man lo werək, am kan haal af nee shi jet,
 INDF man IPFV work 3SG can take down take 3S.POSS food
am ka jet kabáá, am ful fo nee een kleen
 3SG PRF eat finish 3SG feel COMP take INDF small
gut wa mi betji sterək a watu.
 thing REL COP bit strong than water
 ‘Then they said to him: “Thank you very much!”, because when a man is working, [and] he can take his food, [and when] he is finished (eating), he feels like taking something a bit stronger than water.’
 (Roberts; de Josselin de Jong 1926: 57)

- cii) post verbal, indicating that the event is performed to completion, with the object being totally consumed or, totally affected

(78) *Wani sini a dig di graf kabáá,*
 when 3PL PST dig DET grave finish
 ‘When they had dug the grave’
 (J.A. Testamark/X; de Josselin de Jong 1926: 28)

- d) *kaba* does not occur in the twentieth century data post verbally, as an adverb meaning ‘already’.
- e) *kaba* does not occur in the twentieth century data as part of a stative predicate that combines with copulas, *maak* ‘make’ or *lo* ‘go’.

5.4.3. *Kaba*: eighteenth and twentieth century comparison

Table 5.16 presents an overview of *kaba* and its functions based on all Dutch Creole sources in the NEHOL database that contain *kaba*.

Table 5.16: The functions of Dutch Creole *kaba*, all attestations considered

Author	<i>finish</i>	terminative (pre-V)	terminative/ completive (post V)	<i>already</i>	pred	Total
<i>Eighteenth century data</i>						
Danish missionary	9	-	-	1	2	12
Danish colonist	3	-	1	1	1	6
Böhner	6	-	11	4	21	42
Moravian missionary	1	-	1	5	1	8
<i>Twentieth century data</i>						
de Josselin de Jong ^a	25	26 ^b	2	-	-	53
Nelson	1	-	-	-	-	1
Total	45	26	15	11	25	122

a = See Appendix I for a version of Table 5.16 that lists all of de Josselin de Jong’s (1926) informants individually.

b = Contains two occurrences of preverbal *kabáá* with complementizer *fo*.

Twentieth century *kaba* corresponds largely to eighteenth century *kaba*. There are two functions that are absent (or undocumented) in the twentieth century data: i) adverbial use of ‘already’, which occurs regularly in the eighteenth century in a wide variety of sources; and ii) twentieth century *kaba* does not occur as a stative predicate that combines with copulas and the verb *maak* ‘make’. Another important difference between the two time

periods is that no preverbal terminative use of *kaba* has been attested in the eighteenth century.

As the examples in §5.4.1 have shown, eighteenth century Dutch Creole post verbal *kaba* behaves very much like a creole completive. However, in the twentieth century data, creole completive occurrences of (post verbal) *kaba* are rare (two attestations only). Instead, preverbal *kaba*, which has a terminative sense, is much more frequent.

The kind of conclusions we can draw from the eighteenth century are different in nature than those from the nineteenth/twentieth century data. The eighteenth century data represent Dutch Creole as learnt by the native German Moravian and the native Danish Lutheran missionaries. It is not clear to what extent they adopted features from the variety of Dutch Creole as spoken by the population of African descent or from the variety as spoken by the population of European descent. It is certain that the missionaries omitted some features that were too foreign to them, either intentionally or because they did not understand or note them. Thus we do not expect them to faithfully reproduce (non-salient) creole discourse strategies or subtle semantic nuances and restrictions. The exact extent of interference from their own native languages and the exact extent to which they followed the rules of their target variety of Dutch Creole, which was in part self constructed, is open to speculation, but it is nonetheless considerable.

However, we may expect the missionaries to have noted and respected whether Dutch Creole *kaba* was used pre- or post verbally. All data considered, post verbal completive *kaba* corresponds well to how a creole completive is used in other Caribbean creoles. And the post-verbal position of completive *kaba* cannot be accounted for as the result of L1 imposition from German or borrowing from Dutch, since these two languages do not have a comparable construction (surface similarities are discussed in §5.5.3).

Therefore, we can conclude that post verbal *kaba* was used as a completive marker in eighteenth century Dutch Creole, despite the fact that the missionary occurrences very probably do not accurately reflect the use of *kaba* by the eighteenth century enslaved population. For example, the occurrences of *kaba* in §5.4.1 e) require the use of copulas, semi-copulas and other auxiliaries, such as *maak* 'make', and deviate as such from other creole completive markers. Instead, they correspond to the Dutch completive constructions discussed in §5.5.3, so these particular occurrences of *kaba* are probably idiosyncratic to the missionary data.

All in all, the eighteenth century data can teach us that *ka* was indeed used as a perfect and post verbal *kaba* as a (creole) completive, although we should remain cautious in drawing more specific conclusions.

5.5. Perfect and completive in Akan, Ga, Ewe, and Dutch

As discussed in §2.1.4, the West African Kwa languages Akan, Ga, and Ewe are among the potential substrate languages to have influenced the linguistic structure of Dutch Creole. This section discusses constructions that are similar to Dutch Creole *ka* and *kaba* in these languages (see Table 5.17).

First, §5.5.1 discusses items that correspond in function to a perfect, and thus potentially to *ka*: i.e., the Akan and Ga preverbal perfect marker and the Ewe post verbal experiential perfect. §5.5.2 discusses items similar to Dutch Creole *kaba*, i.e., Akan *wie* ‘finish’, Ga *ta* ‘finish’, and Ewe *vɔ*. The Dutch equivalents to *ka* and *kaba* are discussed in §5.5.3. Finally, on the basis of the findings of this section I explore the scenarios of grammaticalization versus non-grammaticalizing reanalysis (Detges 2000) for the origin of Dutch Creole *ka*.

Table 5.17: Perfect and completive markers and related items in Dutch Creole and its substrate languages

Language	Pre-V	Meaning	Post V	Meaning
Akan ^a	<i>a-</i>	perfect	<i>wie</i> ‘finish’	termination
Ga	<i>é`</i> - ^b	perfect	<i>ta</i> ^c ‘finish’	termination
Ewegbe ^d	-	-	<i>vɔ</i> ‘finish’	completive/termination, already-perfect
			<i>kpɔ́</i> ‘see/look’	experiential perfect
Dutch Creole	<i>ka</i>	perfect	<i>kaba</i> ‘finish’	termination, completion, already

a = Akan data from Osam (2003; 2008), Boadi (2008), and Yankson (p.c.)

b = data from Kropp Dakubu (2008)

c = data from <http://www.wulomei.bb/index.php> (26 February 2014) and Kropp Dakubu (p.c.)

d = Ewegbe data from Ameka (2008)

5.5.1. Akan, Ga, and Ewe perfect equivalents

The Akan perfect is described as a “Perfect of persistent result”: it functions as a “Perfect of result” and as a “Perfect of persistent situation” (Boadi 2008: 30). Boadi reports that “[the Experiential perfect and Perfect of recent past] can be illustrated from our data, but they are not central to the system” (2008: 30). An example of Akan *a-* in an experiential context:

- (79) *Kofi a-kɔ sra Nkranmprenu deda.*
 K PRF-go visit Accra twice already
 ‘Kofi has visited Accra twice already’
 (Solace Yankson p.c. 26 February 2014, speaks Akyem, writes
 Akuapem, sentence elicited)

There appear to be cases where Akan *a-* occurs with stative predicates where “an extended resulting state” is implied (Boadi 2008: 31):

- (80) *Nè àni á-gyè.*
 he.ASSOC eye PRF-glitter
 ‘He is happy’.
 (Boadi 2008: 31)

However, Akan makes a morphological/tonal distinction between stative and non-stative forms (Boadi 2008: 35–36). The perfect can combine with the non-stative forms, as in (81a), which contrasts with the stative form in (81b).

- (81) a. *Ò à-dá hɔ́.*
 he PRF-sleep there
 ‘He has laid down there.’
 b. *Ò dà hɔ́.*
 he lie.STAT there
 ‘He is in a state of lying down; he is lying down.’
 (Boadi 2008: 37)

With the verb *da* ‘lie down’, as in (81a), the perfect may result in a resultative reading, with the resultant state of ‘lying down’, ‘being in bed’ holding at speech time, but it may also have a reading where the state of ‘lying down’ has finished (Solace Yankson p.c. 26 February 2014). The perfect derives the resultative reading from the non-stative or change-of-state form of the verb, but it is not clear whether the experiential reading is derived from the stative or the non-stative form. By comparison, verbs such as *nàm* ‘walk’ and *tè* ‘live at’ that are stative only (Boadi 2008: 36), cannot combine with the perfect (Solace Yankson p.c., 3 March 2014).

The Ga perfect is used in strong resultative, as in (82), but also weak resultative contexts, as in (83).

- (82) *Yoo é!-tá shĩ.*
 ‘The woman sat/has sat down.’ (and as a result is now sitting)
 (Kropp Dakubu 2008: 94)
 (83) *Kofi é!-tsũ nii.*
 ‘Kofi worked/has worked (and now the work is done).’
 (Kropp Dakubu 2008: 94)

Dakubu (p.c.) reports that the aorist verb form is more likely to be used in experiential contexts, but the perfect may in some cases also be used:

- (84) *Ani mɔ ko é!-kpé té dǎ?*
 QUES person any PRF-chew stone before
 ‘Has anyone chewed stone before?’ (rhetorical question)
 (Mary Esther Dakubu, p.c., 21 July 2014)

The Akan and Ga perfect have in common that they are primarily used in strong and weak resultative contexts, which, as Table 5.8 showed, is also the case for the twentieth century Dutch Creole data. The main difference lies in how they combine with stative predicates: only Dutch Creole *ka* generally allows stative predicates with an experiential meaning.⁹³ In Dutch, the perfect combines with both stative and non-stative predicates and may have either a resultative or an experiential, but not a continuative interpretation. The superstrate pattern corresponds to many but not all occurrences of Dutch Creole *ka*. Importantly, the superstrate and substrate patterns overlap in the (weak) resultative sense and both allow experiential meanings.

In contrast to Akan and Ga, Ewe does not have a general perfect marker. Instead, the unmarked form of the verb (the aorist) “indicates that the state of affairs encoded in the verb occurred at a time prior to the reference time. Hence in the case of inchoative verbs the post-state is interpreted as having present time reference” (Ameka 2008: 139–140):

- (85) *Me-lɔ wò kplé dzi.*
 1SG-come.to.love 2SG COM heart
 ‘I love you with my heart’
 (Ameka 2008: 140)

Ewe does have an experiential marker *kpɔ* ‘see’ that equals an experiential perfect in some contexts:

- (86) *Nyɔnu má dzi ví kpɔ.*
 woman DIST bear child PFV
 ‘That woman has given birth to children before.’
 (Ameka 2008: 161)

⁹³ The eighteenth century Dutch Creole data also contain *ka* with a stative predicate with a continuative reading. Boadi (2008: 31) gives examples where the Akan perfect also combines with a stative predicate resulting in a continuative reading, but it is not clear whether this is a productive pattern or only occurs in idiomatic expressions (as the Akan examples seem to be).

5.5.2. Akan, Ga, and Ewe completive and finish equivalents

Now let us compare the completive constructions in the substrate languages of Dutch Creole. Post verbal Akan *wie* ‘finish’ is a serial verb and, just like the verb that precedes it, it is marked for tense and aspect, as (87a-b) and (88) show. Post verbal Akan *wie* is a purely lexical verb and does not have any inherent perfect-related meaning, as is illustrated in (87b) by the use of the past perfective suffix – see Osam (2008: 84–86) and Boadi (2008: 26–29) for a description of the past perfective marker). Thus, the perfect meaning in (87a) and (88) derives from the use of perfect marker *a-*.

- (87) a. *Kofi a-di emɔ nɔ a-wie.*
 K PRF-eat rice ART PRF-finish
 ‘Kofi has finished eating the rice.’
- b. *Kofi di-i emɔ nɔ wie-i*
 K eat-PST rice ART finish-PST
 ‘Kofi finished eating the rice.’
 (Solace Yankson p.c., Akyem/Akuapem)

- (88) *Wò-é-dzídzi é-wíé*
 3PL.SBJ-PRF-eat PRF-finish
 ‘They have finished eating.’
 (Osam 2003: 18, Fante)

Post verbal Ga *tã* ‘finish’ is similar to Akan *wie*, although it is coordinated by *ni* ‘and’ to the preceding verb and the pronoun subject is repeated on *ta* ‘finish’, as in (89a-b).

- (89) a. *Ó-yè ní!í ó-tã.*
 2SG.PRF-eat and 2SG.PRF-finish
 ‘you have finished eating.’
- b. *Ō-yè ní!í ò- tã*
 2SG.AOR-eat and 2SG.AOR-finish
 ‘you finished eating.’
 (Mary Esther Dakubu, p.c. 13 March 2014)

When a grammatical prefix, such as perfect marker *é-*, “is preceded by another element [such as] a subject pronoun, the prefix is expressed only as the tone of the preceding syllable. For example, ... the high tone of the pronoun expresses the perfect aspect” (Kropp Dakubu 2008: 98). In (89a-b), we see the same pattern as in Akan (87a-b): the perfect meaning in (89a) derives from the perfect marking on the verb *tã* ‘finish’ (realized as a high

tone on the pronoun prefix). The same construction may refer for example to a perfective situation when marked with the aorist (realized as a low tone on the pronoun prefix) as in (89b).

Ewe *vɔ* is different from Akan *wie* and Ga *tã* in various respects. It functions as an adverb and thus only occurs as a bare form (Ameka 2008: 161ff; van den Berg & Aboh 2013: 158). Unlike Akan *wie*, *vɔ* has inherent grammatical meaning, which depends on the situation type of the predicate it follows:

- i) “total completion or accomplishment reading” with “homogeneous activities, i.e. processes” (Ameka 2008: 164):

(90) *Áma ɖu nú vɔ.*
A eat thing COMPL
‘Ama has finished eating.’

(91) *Deví-á-wó â-ɖu nú-á vɔ háfí á-yi suku*
child-DEF-PL POT-eat thing-DEF COMPL before POT-go school
‘The children will eat the food (completed) before they go to school.’

In (90), *vɔ* corresponds to a “creole” *completive*, i.e., among other things it refers to a terminated and not an interrupted (thus in that sense a completed) situation. In (91), *vɔ* has a completive meaning in Bybee et al.’s (1994: 57) sense, since “the object of the action is totally affected, consumed, or destroyed by the action”.

- ii) “imminent completion” with “bounded events, i.e., instantaneous actions, and developments” (Ameka 2008: 164):

(92) *Míe-ɖó kpándo vɔ.*
1PL-reach Kpando COMPL
‘We have almost reached Kpando’. ≠ ‘We have reached Kpando.’

- iii) with “change of state situations” and “gradual achievements” both meanings (total completion and imminent completion) are possible (Ameka 2008: 164):

(93) *Ga ɖó así-nye vɔ*
money reach hand-1SG COMPL
‘I have got (acquired) money’ / ‘I am about to have money.’
(lit. Money has/ is about to reach my hands.)

Dutch Creole *kaba* corresponds to Ewe *vɔ* in the sense that both are grammaticalized post verbal bare verb stems (whether or not this could be called adverbial in all instances in Dutch Creole). Dutch Creole *kaba* also expresses the sense of “total completion”, as in (94), but not that of “imminent completion”. There are no achievements marked by *kaba*, but with change of state verbs, only the “total completion” sense is available, as in (95), with the notion of “already”.

- (94) *Wani sini a dig di graf kabáá,*
 when 3PL PST dig DET grave finish
 ‘When they had dug the grave’
 (J.A. Testamark/X; de Josselin de Jong 1926: 28)

- (95) *Maske ons ka krieg kaba al die Eer, die ons kan wens,*
 maybe 1PL PRF get finish all DET honour REL 1PL can wish
 ‘It may well be that we have already got all the honour we could wish for.’
 (Lund 1798: 73; erratum)

Another difference is that Dutch Creole *kaba* combines with stative predicates, but Ewe *vɔ* does not (Ameka 2008: 163–164):

- (96) *Ga le así-nye vɔ.*
 money be.at.PRES hand-1SG COMPL
 ≠ ‘I have money.’

Similar to Sranantongo *kaba* (see Winford 2000: 434–435), *kaba* seems to express the meaning of ‘already’ with stative predicates. An interesting finding supporting this is that *kaba* ‘already’ occurs both with resultative, as in (95), and experiential perfects, as in (97). The experiential meaning of *ka hab* in (97) makes that the stative predicate does not hold up to the point of reference, *kabba* only adds the meaning of ‘already’. The fact that Ewe *vɔ* does not combine with stative predicates suggests that this is an innovation in the creoles.

- (97) *Da vyf Mann joe a ka hab kabba.*
 FOC five man 2SG PST PRF have finish
 ‘You have already had five husbands.’
 ([Auerbach] nd: 36)

To summarize, Dutch Creole *kaba* corresponds to Ewe *vɔ* in syntactic position, in one of its two possible meanings, i.e., “total completion”, and is at least superficially similar in morphological status. Dutch Creole *kaba*

corresponds to Akan *wie* and Ga *ta* only in syntactic position and in the sense of expressing termination of the situation. Dutch Creole *kaba* is not a serial verb in the sense that Akan *wie* is nor does it occur in a conjunction as Ga *ta*. Thus, even though Dutch Creole *kaba* may reflect the meaning of both Ewe *ɔ*, Akan *wie*, and Ga *ta*, it most strongly corresponds to the former. Dutch Creole *kaba* has innovated its co-occurrence with stative predicates and the meaning of ‘already’.

5.5.3. Dutch equivalents to Dutch Creole *ka* and *kaba*

Dutch has a perfect that is functionally similar to the Dutch Creole perfect: it occurs in strong and weak resultative and experiential but not in continuative contexts. Formally, it is very different from the Dutch Creole perfect: Dutch uses a past participle form of the verb that requires the presence of the auxiliary verbs *zijn* ‘be’ or *hebben* ‘have’:

- (98) a. *Ik heb gewerkt.*
 I have worked
 ‘I have worked.’
 b. *Ik ben gevallen.*
 I am fallen
 ‘I have fallen.’

Dutch does not have one verb that corresponds to Dutch Creole *kaba* ‘finish’ or English *finish*. Instead, it makes use of particles that combine with verbs such as *zijn* ‘be’, *hebben* ‘have’, *maken* ‘make’, but also content verbs. I will illustrate the Dutch particles by providing the modern Dutch translations of the content main verb *kaba* ‘finish’ in various contexts:⁹⁴

- (99) *op* ‘finished’, ‘depleted’
 a. *Wa die kou sout Vleis? Die ka kaba.*
 where DET cold salt meat 3 PRF finish
 ‘Where is the cold salted meat? It is finished.’
 (Magens 1770: 56)
 b. *Waar is het koude pekelvlees [zout vlees]? Dat is op.*
 where is ART.NEU cold salted.meat salt meat
 that is finished

⁹⁴ It may be that not all of these particles were current in seventeenth or eighteenth century Dutch or that another particle was more frequent or common at that time. I only want to illustrate that a particle is used to express the meanings discussed. For this purpose, it does not matter which exact particle was most likely to have been used.

(100) *af* ‘finished’, ‘done’, ‘completed’

- a. *Mi ka kabaē mi Werk en Saek.*
 1SG PRF finish 1SG work and thing
 ‘I have finished my work.’
 (Praetorius 1823: 129)

- b. *Ik heb mijn werk af.*
 I have my work done

- or c. *Ik ben klaar met mijn werk.*
 I am ready with my work

(101) *voorbij/over* ‘over’

- a. *Aster deese viertig Dag-en ha ka kaba,*
 after these forty day-PL PST PRF finish
 ‘After these forty days were over’
 (Lund 1798: 40)

- b. *nadat deze veertig Dag-en voorbij waren,*
 after these forty day-PL past be.PST.PL

(102) *klaar* ‘ready’, ‘finished’, ‘done’

- a. *Weni am a kabáá, ham a see:*
 when 3SG PST finish 3SG PST say
 ‘When he (was) finished [eating a chicken], he said’
 (Joshua; de Josselin de Jong 1926: 20)

- b. *toen hij klaar was, zei hij*
 when he ready was said he

We also find *kaba* used in the eighteenth century missionary sources corresponding to Dutch content verbs: *vernietigen* ‘destroy’, *kapotmaken* ‘destroy’, or *uitroeien* ‘extirpate/eradicate’:

- (103) *Da mi will spoel die Aerde af; en Kaba die*
 FOC 1SG want wash DET earth off and finish DET
menschlike geslecht.
 human race
 ‘I want to cleanse the earth and extirpate the human race.’
 (Böhner nd.c: 17)

When *kaba* predicates over its subject, the Dutch translation combines the particle with the verb *zijn*, as in (99), (101), and (102). When *kaba* predicates over an object, Dutch would use *hebben* ‘have’, as in (100). These particles

are also used for a process rather than a state, e.g. in a transitive construction with the verb *maken* ‘make’.

These particles can also combine with content verbs and it is here that they may overlap with completive *kaba*. The particle *op* ‘depleted’ expresses exactly what a typical completive marker expresses: that something is or has been totally affected, so that nothing remains. With verbs of consumption, English uses its cognate particle *up* that we see in (104). Thus on the surface Dutch Creole completive marker *kaba* corresponds to the Dutch completive particle *op* in such cases:

- (104) a. *en sender jett kaba, wat ka bliev,*
 and 3PL eat finish what PRF remain
 ‘and they will eat up, what will have remained.’
 (Böhner nd.c: 29)
- b. *en ze eten op wat overgebleven is.*
 and 3PL eat up what remain.PP is

However, Dutch Creole *kaba* and the Dutch completive particles differ when they predicate over the syntactic subject. As we have just seen in (99b), Dutch combines completive *op* with the verb *zijn* ‘be’ in those cases, whereas Dutch Creole just uses the verb *kaba* ‘finish’, with or without perfect marker *ka*. When *kaba* is combined with *wees* ‘be’ in missionary data, as in (105), this seems likely to be a case of interference from Dutch (or German, which behaves similarly as Dutch in this respect).

- (105) a. *En as noe die Water na die Vlasch a wees kaba*
 and when now DET water LOC DET bottle PST be finish
 ‘And when the water in the bottle was finished (= there was no
 more left)’
 (Böhner nd.c: 62)
- b. *en toen het water in de fles op was*
 and when ART.NEU water in ART.CG bottle gone was

I assume that all eighteenth century missionary attestations of *kaba* exemplified in ei)–eiii) in §5.4.1 are due to interference from the Dutch particle constructions. In all these cases, we would expect Dutch Creole to use *kaba* as a main verb. I should add that virtually all these instantiations of *kaba*, as in (104a) and (105a), occur in only one source (Böhner nd.c), and almost all in the sense of termination of existence, as in (106), and destruction, as in (107).

- (106) a. *Sender dood, en *d*an ben sender Wieshiet kaba.*
 3PL die and then be 3PL wisdom finish
 ‘They (will) die, and then their wisdom will be gone.’
 (Böhner nd.c: 183)
- b. *Ze gaan dood en dan is hun wijsheid weg/ verloren (etc.)*
 3PL go dead and then is their wisdom gone lost
- (107) a. *As mi sal wees onder jender, soo die sal kan gebuir dat mi*
 if 1SG IRR be among 2PL so 3 IRR can happen that 1SG
eens skielik sal vaarover joe/jender, en maak joe kabba.
 once suddenly IRR go over 2SG|2PL and make 2SG finish
 ‘If I will be/were among you, so it may/could happen that once I
 will come over you and kill you.’
 (Böhner nd.c: 100)
- b. [...] *dat ik [...] je dood / kapot (etc.) zal maken*
 that I you dead / broken will make

5.6. Grammaticalization or reanalysis

As §5.5 has shown, Dutch Creole perfect marker *ka* overlaps in syntactic position with the functionally similar (though not identical) Akan and Ga perfect markers *a-* and *é-*, but also the Dutch perfect auxiliary *hebben* or *zijn* in canonical main clauses. Having discussed the relevant sub- and superstrate patterns, we are now in a better position to analyze the evolution of the Dutch Creole perfect marker *ka*. Van Name (1871: 162) is uncertain about the origin of *ka*, but formulates three possible etymologies:

- (108) a. Dutch *gehad* (past participle of *hebben* ‘have’)
 b. Dutch Creole *kom* ‘become’
 c. Dutch Creole *kaba* ‘finish’

Hesseling (1905: 108) accepts only the third option persuaded by the semantics of the verb *kaba* ‘finish’ that obviously indicates that a situation has ended. This is supported by later authors addressing the topic. In my view, too, Dutch Creole *kaba* is the only plausible option. Option b) cannot account for the open vowel /a/ in *ka*, since *kom* ‘(be)come’ has survived into twentieth century Dutch Creole as *ko* ‘(be)come’. Option a) seems rather far-fetched, since the Dutch <g> fricative has ended up in Dutch Creole in all other instances as the voiced plosive /g/, not the unvoiced plosive /k/. Moreover, it is hard to imagine a construction in which the Dutch past participle *gehad* could function as a perfect auxiliary, and even if one does, *gehad* would occur in post verbal rather than pre-verbal position.

Thus the item *kaba* ‘finish’ is the most likely etymological source of Dutch Creole perfect marker *ka*. In de Josselin de Jong’s (1926) narratives, *ka* occurred variably as *ka* and *kaa* (see §2.2.6.4.3 for de Josselin de Jong’s 1926 original spelling convention). De Josselin de Jong (1926: 9) describes the pronunciation of the <a> sound in *ka* as a “variable a-sound, fluctuating between Dutch *man*”, i.e., a lax, back open vowel /a/, “and Dutch *sta*”, i.e., a tense, front open vowel /a/ (translation mine). The <aa> in *kaa* sounds like the vowel in Dutch *sta*, thus the tense, front open vowel /a/. Out of 410 occurrences of *ka*, it occurs only 20 times as *ka* and 390 times as *kaa*. Since *kaba* ‘finish’ occurs invariably as <kabáá> /ka'ba/ (the accent indicates that the stress is on the second syllable) in de Josselin de Jong (1926), the predominance of the tense open vowel in *ka* in the 1920s supports the assumption that *ka* is a phonological reduction of *kaba*, in which intervocalic /b/ has disappeared and the first vowel has been swallowed by the second that bears word stress.

But how and why did *kaba* ‘finish’ evolve into perfect marker *ka*? Detges (2000) discusses the different paths of development of two tense-aspect markers in French creoles: the perfect marker *(fī)n(i)* (from French *fini(r)* ‘finish(ed)’), and the imperfective past marker *té/ti*. The former is the result of grammaticalization, whereas the latter is the result of “creole-specific reanalysis” (Detges 2000: 154). Thus, the perfect marker in French creoles is also derived from a verb meaning ‘finish’.

It would be obvious now to see if Dutch Creole *ka* has also developed from Dutch Creole *kaba* ‘finish’ as a result of grammaticalization. Detges (2000) ascribes to the viewpoint that “grammaticalization is closely linked to subjectification [(e.g. Traugott 1995)]”, according to which “grammaticalization is the unintended result of certain rhetorical discourse strategies on the part of speakers” (Detges 2000: 135). “The typical rhetorical procedure that turns [French creole] *fini* into a temporal marker may be conceived of as a situation in which someone asks the speaker: “Did you do the job I asked you to?” and the latter answers “Look, I’m FINISHED WITH doing it (here is the result)!” (small caps in original; Detges 2000: 141). Detges (2000: 154–155) lists five features in which grammaticalization differs from creole-specific reanalysis (named non-grammaticalizing reanalysis in Bruyn 2008: 398):

- 1) “Grammaticalization is brought about by speakers who try to speak convincingly, creole-specific reanalysis is the result of a hearer’s strategy, aimed at understanding. In grammaticalization, new markers normally emerge on the basis of speaker-related linguistic forms – normally the 1SG. PRES. IND – while in creole-specific reanalysis, new markers are selected on the basis of frequent forms”.

- 2) “Semantically, the forms which are the linguistic “input” to grammaticalization have in common that they efficiently serve some rhetorical purpose [...], forms that are selected in creole-specific reanalysis have in common that they refer to situationally salient concepts”.
- 3) “Especially in earlier stages of their development, markers which result from grammaticalization are polysemous, because (at least) the old meaning which is the “input” to the grammaticalization mechanism coexists with the new meaning of the marker [...]. Markers which are the result of creole-specific reanalysis are conceptually isolated: in the [French creoles] *té/ti* never had a function other than marking background past events.”
- 4) “Markers which are brought about in grammaticalization evolve polygenetically along universal conceptual pathways of change [...], products of creole-specific reanalysis are etymological continuations of forms in the base language.”
- 5) “Historically, the generation of markers which are brought about by creole-specific reanalysis represent the earliest layer in the system of the language while markers which are the result of grammaticalization emerge in later stages of the creole’s history.”

Features 1), 2), and 4) speak in favour of perfect marker *ka* having grammaticalized from Dutch Creole *kaba* ‘finish’: it is not very likely that Dutch Creole *ka* developed as a perfect marker as a result of enslaved Africans reanalysing high frequent linguistic input from the Dutch-speaking planter population that involved the Portuguese verb *acabar* ‘finish’. Feature 3) may confuse the picture, since as discussed in §5.4.1, there are no eighteenth century occurrences of Dutch Creole *kaba* ‘finish’ in preverbal position, which is remarkable in the sense that a control verb in post verbal position does not correspond in any way to a European construction involving a verb with the meaning ‘finish’ or any related meaning.

It is of course very well possible that there has always been variation in the syntactic position of Dutch Creole *kaba* ‘finish’ as a terminative control verb: preverbal as attested in the twentieth century data and post verbal as attested in the eighteenth century data (see Table 6.16 in §5.4.3). But if the difference in the distribution of the eighteenth and twentieth century data is indicative of a diachronic difference in the frequency and prominence of the preverbal and post verbal position of Dutch Creole *kaba*, then possibly there has been an increase in the preverbal construction at some point in time. Given that Virgin Islands English Creole uses preverbal *done*, as illustrated in (109), it might be the case that the frequency of the preverbal use of terminative *kaba* rose as many speakers shifted to English Creole in the nineteenth century.

- (109) *E done bathe e skin.*
 3sg COMPL bath 3SG body
 ‘He is done washing his body.’
 (Valls 1981: 36)

In any case, it seems that preverbal *kaba* as a perfect marker was categorically reduced to *ka*.

Dutch Creole completive *kaba* has most likely been created by bilingual Dutch Creole-Ewe speakers, whose post verbal completive marker *vɔ* with perfect-like meaning is identical to the verb *vɔ* ‘finish’ (Ameka 2008; van den Berg & Aboh 2013: 158). On this basis, Ewe speakers are likely to have selected the Dutch Creole verb *kaba* ‘finish’ and use it in post verbal position. This seems like a scenario of *apparent grammaticalization* – see §1.3.2 and Bruyn (1996) for the similarities with the postnominal locative items in Sranan – which means that there has been no language-internal grammaticalization.

Rather, the Dutch Creole completive construction appears to be the result of transfer of a completed grammaticalization from Ewe – hence the term *apparent grammaticalization*. Because “there are no indications that [the item] actually developed in the typically gradual, stepwise fashion”, Bruyn (2008: 403) identifies apparent grammaticalization with Heine & Kuteva’s (2003: 555) notion of polysemy copying (alternatively labelled grammatical calquing), where “instead of a grammaticalization process, we are dealing with the replication of a polysemy pattern”. Bruyn (2008: 403) concludes that “[i]t could be argued that polysemy copying, of which Heine and Kuteva suggest that it is less usual, is favored in the specific circumstances in which a radical creole evolves with a relatively homogeneous substrate.”

But as discussed, Dutch Creole completive *kaba* is not entirely similar to Ewe *vɔ*. Similarly to Sranantongo *kaba* (van den Berg & Aboh 2013: 170), the scope properties of Dutch Creole *kaba* may derive from superstrate (Dutch) FINISH constructions. Unlike Ewe *vɔ*, Dutch Creole *kaba* is compatible with stative predicates. And this is an innovation in Dutch Creole that may be due to the properties of the Dutch constructions discussed in §5.5.3.

This situation shows that Dutch Creole *kaba* has developed into two different markers: preverbal perfect marker *ka* and post verbal completive marker *kaba*.

5.7. Conclusion

There is general disagreement on the exact functions of *ka* (*completive* Graves 1977; *anterior* Sabino 1986; *resultative* Stolz 1986; *perfective* Bruyn

& Veenstra 1993; Sabino 2012), but this chapter has shown that Dutch Creole *ka* is a perfect marker in both eighteenth and twentieth century data that occurs with a strong and weak resultative and an experiential interpretation. Dutch Creole *ka* most probably derived from Dutch Creole *kaba* ‘finish’ (from Portuguese *acabar* ‘finish’; Hesseling 1905: 108) with subsequent phonological reduction of *kaba* /ka‘ba/ to *ka* /ka/. Dutch Creole post verbal *kaba* has undergone a separate development into a (creole) completive marker. A comparison of Dutch Creole *ka* and *kaba* with comparable perfect and completive constructions in Dutch Creole’s substrate languages, predominantly Akan, Ga, and Ewe (Stolz & Stein 1986; Sabino 1990) shows that *kaba* is similar in function to the Ewe completive marker *vɔ*. With respect to Dutch Creole *kaba*, these results partly mirror those in Winford (2000; 2006; 2008), Winford & Migge (2007), and van den Berg & Aboh (2013), who assume substrate influence for Sranantongo *kaba* ‘finish’ as a completive/perfect marker. I similarly conclude that Dutch Creole completive *kaba* is probably the result of apparent grammaticalization (Bruyn 1996) or polysemy copying (Heine & Kuteva 2003), where a polysemy pattern from Ewe *vɔ* FINISH-COMPLETIVE has been copied onto Dutch Creole *kaba* ‘finish’. Nevertheless, the scope of predicates of Dutch Creole *ka* and *kaba* is wider than the corresponding constructions in Akan, Ga, and Ewe (just as is the case for Sranantongo *kaba*): unlike their West African equivalents, Dutch Creole *ka* and *kaba* combine with any kind of stative predicate.

Finally, the post verbal completive use of Dutch Creole *kaba* that is suggestive of Ewe substrate influence is most prominent in the eighteenth century MDC and EDC data, which is exactly where we expect substrate influence to show up the least. By contrast, in the twentieth century ADC data *kaba* is prevalent in preverbal position. This difference may indicate language change influenced by the nineteenth century shift to English Creole, which uses preverbal *done*.

CHAPTER 6. MODALITY

6.1. Introduction

Virgin Islands Dutch Creole (abbreviated to Dutch Creole) has been strongly restructured with respect to its lexifier – late seventeenth century varieties of Dutch, of which (northern coastal) West-Flemish dialects have been most influential, and in addition other varieties such as Standard Dutch (see §2.1.2.4) – but also to its substrate languages, the West African ancestral languages of the creators and later speakers of Dutch Creole (among which late seventeenth century varieties of Akan, Ewe and Ga, as discussed in §2.1.4). The Dutch Creole verb system is very different from the Dutch system: verbs have lost Dutch morphological inflection, including infinitive marking, and there is no clause-final clustering of verbs in Dutch Creole, unlike in Dutch. Dutch Creole has created a system of tense, modality, and aspect (TMA) distinctions that are expressed via preverbal markers. The aspect markers always directly precede the verb, but other TMA markers may be followed by certain adverbs that precede the verb. The Dutch Creole modal auxiliaries (see §6.4.5 on the issue of whether the ADC modals are auxiliaries or serial verbs) are largely based on the Dutch modal verbs. In this study I will investigate the overall Dutch Creole modal system and conclude that the range of functions expressed is very similar to the range of functions of Dutch modal verbs. However, some of the forms used are striking innovations.

Dutch Creole contains a number of features also present in other Caribbean creoles that can be related in one way or another to West-African substrate influence, such as serial verb constructions and the expression of property concept items as verbs. In comparison to certain other Caribbean creoles, however, such as Sranantongo in Suriname, these features do not seem to have been as strongly entrenched. This may certainly be due to some extent to the nature of the Dutch Creole documentation, but the twentieth century data, which are most rich in these “African” features of all data suggest that Dutch Creole has adopted relatively few substratal features and has been strongly influenced by its lexifier.

In this paper I will investigate the possibility of this scenario with respect to the Dutch Creole modal system. §6.2 discusses the framework of modality adopted in this study. §6.3 discusses on what basis I determined which occurrences to include from the set of in this respect potentially problematic items.

Being the most reliable ADC data available, the twentieth century Dutch Creole data will serve as the point of reference. Therefore, the modal expressions in these data are discussed first in §6.4. They are compared to the nineteenth and eighteenth century data in §6.5 and §6.6 respectively. §6.7 discusses how the Dutch Creole data discussed in §6.4, §6.5, and §6.6 relate to the modal expressions in the other relevant language varieties: Dutch, English, Danish, German, Akan, and Ewe. §6.7 starts off with an overview of which Dutch modals have been retained in Dutch Creole, which ones have not, and which Dutch Creole modals have other sources. I then discuss how Dutch Creole necessity *ha fo* ‘have to’ relates to its seventeenth century Dutch, English, and Akan and Ewe counterparts, and turn to the possible scenarios of how Dutch Creole *fo* and *ha fo* developed as modals. Subsequently, I compare Dutch Creole *bin fo* to its Dutch and English counterparts. Next, I discuss the possibility of lexifier versus substrate influence on the volitional markers. Finally, I compare the use of Dutch Creole *kan* with its Dutch etymon *kunnen* and its substrate equivalents. In §6.8, I present the conclusions of this chapter and provide an overview of what constructions are used to express the modal categories discussed in this chapter in all six language varieties discussed.

6.2. Nuyts’ framework for the analysis of modality

Despite the fact that the notion of modality has a long history in linguistic and semantic analysis, there is still no consensus on its definition or characterization (Nuyts 2005: 5). The framework used in this study is based on the work of Jan Nuyts (e.g., 2001; 2005; 2006; Nuyts et al. 2010). Based on cognitive-functional theoretical insights into language (Nuyts 2005: 6), he proposes to “disassemble” the notion of modality “in favour of a number of more specific semantic concepts, each of which (or at least most of which) should be treated as basic and should be studied in its/their own right, on an equal par with time and (types of) aspect. Some (but not all) of these more specific “modal” categories may still be grouped together (more loosely and probably with the inclusion of yet other categories) in a wider supercategory on the basis of certain semantic criteria (though different ones from those commonly assumed to underlie the notion of modality)” (Nuyts 2005: 5–6).

In fact, Nuyts (2005) rigorously proposes that ultimately it would be best to do away with the term *modality* altogether, and replace it with the notion of *attitude*, a supercategory comprising only *evidential*, *epistemic*, *deontic*, and *boulomaic* – the degree of an agent’s “liking or disliking of the state of affairs” (Nuyts 2006: 12) – *attitudes*. The attitudinal categories “pertain to the state of affairs as a whole” (Nuyts 2009: 188) and “concern the questionability of the state of affairs” (Nuyts 2009: 191).

This supercategory is on the same analytical level as the “situating” supercategory, which comprises of time, space, and quantificational aspect. Dynamic modality would be categorized as a subtype of quantificational aspect (see §6.2.1). The situational categories “simply [describe] a fact about a state of affairs in the world”, which is exactly what dynamic modality does as well (Nuyts 2009: 191).

In the remainder of this section, I will illustrate the various categories that Nuyts distinguishes using examples from Dutch and English. Dutch Creole examples will be discussed in §4.

6.2.1. Dynamic modality

DYNAMIC MODALITY is defined as indicating “a necessity inherent in a participant or ensuing from the situation as a whole”, but which “[does not involve] “moral principles” or the imposition of an obligation” (Nuyts et al. 2010: 22). Throughout this subsection, the terms *necessity*, *need*, and *obligation* are used to refer to dynamic modality as expressed by a necessity modal such as Dutch *moeten*, or English *have to*. They can of course be replaced by the terms *possibility*, *ability*, and *permission* to refer to dynamic modality as expressed by a possibility modal such as Dutch *kunnen* and English *can*. There are three subtypes of dynamic modality:

a) PARTICIPANT-IMPOSED, i.e., “a necessity imposed upon the agent participant by the circumstance”:

- (1) A: *kunt ge daar (...) ook die metalen pootjes mee afschuren?*
 B: *da ‘s veel te breed hè. dat **moet** ge met de handen doen.*
 ‘A: Can one scour (...) those metal legs with it?
 B: It is much too large, isn’t it? You **have to** do that manually.’
 (Nuyts et al. 2010: 22)

b) PARTICIPANT-INHERENT, where “the need or necessity is fully inherent to the agent participant”, e.g. *I must go to the toilet* (Nuyts et al. 2010: 22–23), although *I need to go to the toilet* is probably more idiomatic English.

c) SITUATIONAL, “which go beyond [...] needs/necessities of any participant in the state of affairs, and rather characterize [...] a necessity/inevitability inherent in the situation described in the clause as a whole” (Nuyts 2006: 4):

- (2) *voorzitter als u mij toestaat de laatste keer. hoeveel affaires **moeten** d'r nu nog naar buiten komen voordat u van deze houding afstapt.*
 'Mister Chairman, if you allow me one last time. How many more affairs will **have to** see the daylight before you are going to change this attitude?'
 (Nuyts et al. 2010: 22)

Nuyts (2005: 8–9) admits that some cases of situational dynamic modality border on epistemic modality, such as (3), but he argues that they are not epistemic, because they do not express an estimation of their probability.

- (3) The book **need** not be in the library. It can also be on my desk.
 (Nuyts 2006: 4)

As already mentioned, Nuyts (2005: 20–21) argues that dynamic modality should be classified as a subcategory of quantificational aspect. Quantificational aspect expresses different types of quantification over States-of-Affairs, such as habitual, iterative, or frequentative aspect (Dik 1997: 221). Thus, “[q]uantificational aspect distinctions deal primarily with the *frequency* with which the SoA is said to occur” [emphasis mine] (Dik 1997: 236). Dik (1997: 236) discusses four different types of quantificational aspect markers (semelfactive, iterative, frequentative, and distributive aspect) that indicate various degrees of frequency of the state-of-affairs ranging from “a single time” to “many times”. Habitual aspect, as in (4), is also included in this category. It indicates that the state-of-affairs occurs regularly during a certain time period that may be made explicit in the context – compare Dahl (1985: 97) and Comrie (1976: 27–28).

- (4) John eats a lot of chocolate.

According to Nuyts (2005: 20), these quantificational aspectual notions “are clearly semantically akin to” dynamic modal notions as *ability/potential* and *need*, “in the sense that they are all concerned with the *appearance* of the state of affairs in the world.” One of the similarities is that quantificational aspect notions such as habitual aspect “typically also relate to the first-argument participant in the clause: it is this participant who is said to regularly do something (*John happened to take a walk in the park every Sunday afternoon*), or who is said to have a property with a ‘law like’ character (*men will be men*)” (Nuyts 2005: 21). Additionally, quantificational aspect such as habitual aspect can have a participant-external or situational variant (*it happens to rain here on Christmas day*) (Nuyts 2005: 21).

Nuyts's assertion that dynamic modality is not an attitudinal category is indisputable given his definitions. I agree that habitual aspect and dynamic modality are semantically akin in that they both attribute properties to a participant or another entity or situation: a habit and an ability/possibility/need/necessity respectively.

But given the just mentioned definition of quantificational aspect, I fail to see how dynamic modality can be considered to be a "subtype of the category of quantificational aspect" (Nuyts 2005: 27), unless the two make up a distinct category, defined by their shared traits, that consists of two subcategories, quantificational aspect and dynamic modality. In this study, I will maintain the distinction and view them as two closely related but separate categories.

6.2.2. Epistemic modality

EPISTEMIC MODALITY is defined as "an indication of the estimation, typically, but not necessarily by the speaker, of the chances that the state of affairs expressed in the clause applies in the world" (Nuyts 2006: 6):

- (5) Someone is knocking at the door. That **will** be John.

This assessment allows different degrees of certainty/probability, "going from absolute certainty that the state of affairs is real, via intermediate stages of (on the positive side) probability, possibility and (on the negative side) improbability, to absolute certainty that it is not real" (Nuyts 2005: 10). Thus, the category of epistemic modality is best viewed as scalar. This scale can be illustrated using the modal auxiliaries in English:

- (6) Someone is knocking at the door.
- a. That **must** be John. (certainty)
 - b. That **will** be John. (probability)
 - c. That **may** be John. (possibility)
 - d. That **won't** be John. (improbability)
 - e. That **can't** be John. (negative certainty)

6.2.3. Deontic modality and directives

DEONTIC MODALITY is generally seen as a type of modality related to obligation and permission (e.g., Lyons 1977: 832; Kratzer 1978: 111; Palmer 1986: 96–97; van der Auwera & Plungian 1998: 81):

- (7) You **must** open the door. (Lyons 1977: 832).

Nuyts et al. oppose this view and propose instead to view deontic modality “as an assessment of the degree of moral acceptability of the [state of affairs]” (2010: 18), where morality “need not involve societal principles, [but] can also concern strictly personal norms of the assessor” (2010: 23fn). As such, the definition is able to include the deontic sentences in (8), which do not involve permission or obligation:

- (8) a. Such statements are **(in)acceptable/(un)desirable/intolerable**.
 b. I **deplore/applaud** that John dares to say such things.
 c. He’d **better** not say such things in public.
 d. **(Un)fortunately** John does not make such statements in public anymore.
 (Nuyts et al. 2010: 18)

Thus, Nuyts et al. (2010) have redefined the category of deontic modality as a strictly attitudinal category that allows for different degrees of acceptability or desirability. It shares these characteristics with epistemic modality. The following example from Dutch illustrates their use of deontic modality well:

- (9) *ik bedoel Nederlands is toch de standaardtaal die wij allemaal spreken en op ‘t moment dat jij dialect gaat praten waar mensen bij kunnen zijn die ‘t niet verstaan ga je mensen uitsluiten en dat **mag je niet**.*
 ‘I mean Dutch is the standard language which we all speak and if you start using dialect when there can be people around who do not understand it then you are going to exclude people and one should not do that/that is unacceptable.’
 (Nuyts et al. 2010: 23–24)

Moreover, Nuyts et al. (2010: 26–27) propose to treat obligation and permission not as a subtype of deontic modality, but as part of the separate category of directives, i.e., as “speech act notions, of the same type which also underlies a mood category such as the imperative” (Nuyts et al. 2010: 18). This category is defined as including “those instances in which (usually) the agent participant in the [state of affairs] is instructed – with some degree of strength: advised, obliged, interdicted – or permitted to do what is involved in the [state of affairs], on behalf of some source (the speaker him/herself, or some other willful [sic] being or institution)” (Nuyts 2010: 24). In Dutch, directive usage is dominant for the modals *moeten* ‘must’ and *mogen* ‘may/be allowed to’ (Nuyts 2010: 20). An example is given below:

- (10) *Zoals uit het voorgaande blijkt is seksualiteit huwelijk en voortplanting onverbrekkelijk met elkaar verbonden. In de praktijk werd dit vertaald in een strenge reglementering van seksualiteitsbeleving. Binnen het huwelijk **moest** men zich beperken. Zon- en feestdagen kwamen niet in aanmerking.*

‘As appears from the foregoing, sexuality, marriage and reproduction are inseparably interconnected. In practice this was translated into a strict regulation of sexual practice. In marriage one **had to** limit oneself. Sundays and holidays were out of the question.’

(Nuyts et al. 2010: 25)

Van Linden & Verstraete (2010: 154) argue that the category of deontic modality, as defined in Nuyts et al. (2010), can be either potential (not yet realized) or already realized or bound to be realized. It is only the potential group that can be truly deontically assessed, i.e., assessed as desirable. The other group with presupposed SoAs can only be evaluated, e.g. as appropriate, important, or good, but this is non-modal. Thus, according to van Linden & Verstraete (2010: 154) “deontic deontic modality involves the assessment of the degree of desirability of a *virtual* SoA, whose realization is by default in the future, by some attitudinal source” [emphasis mine]. Note that this means that Nuyts et al.’s examples (8a-d) are not in fact deontic according to van Linden & Verstraete’s (2010) adjusted definition. This distinction is however only relevant for adjectival and verbal expressions. The current study is restricted to modal auxiliaries, which are not expected to have factual complements. More important for the current study is that van Linden & Verstraete (2010: 160) argue that Nuyts et al.’s (2010) distinction between deontic and directive meaning should be maintained.

6.2.4. Performativity

As mentioned earlier, epistemic and deontic modality are all “about types of commitment to states of affairs” (Nuyts 2005: 27). The same applies for directives. But what exactly does it mean to be committed to a state of affairs?

Let us have a look again at Lyons’s example (7) in §6.2.3 reproduced in full form in (11).

- (11) You **must** open the door. (Lyons 1977: 832).
 a. I hereby impose upon you the obligation to open the door.
 b. I hereby assert that you are obliged (by some unspecified authority) to open the door.

Lyons mentions that a sentence as (11) may have two interpretations: a) it may be a DIRECTIVE, meaning “I hereby impose upon you the obligation to open the door”; or b) a *statement*, meaning “I hereby assert that you are obliged (by some unspecified authority) to open the door” (Lyons 1977: 832). According to Lyons, only (11a), where the speaker imposes the obligation, is a directive. He sees (11b), but possibly also (11a), as expressing deontic modality.

Nuyts et al. (2010) use the term *performativity*, known from speech act theory, but assign it a new, broader definition, where “[it] refers quite generally to the issue of the presence of speaker commitment in the use of a linguistic form: if there is commitment on behalf of the speaker, then the form is performative, if there is no speaker commitment, then the form is descriptive” (2010: 27). When we connect these notions of performativity and descriptivity to (11a) and (11b), we could say that (11) is a directive in either interpretation, but one that is PERFORMATIVE in interpretation a) and DESCRIPTIVE in interpretation b).

Nuyts (2001: 208–210) asserts that when expressed by a modal auxiliary epistemic modality can only be expressed performatively by means of modal auxiliaries. By contrast, deontic modality can be either performative or descriptive, just like directives:

- (12) performative deontic
ik moet er drie uitnemen en ze moeten een beetje verband hebben met elkaar vind ik
 ‘I have to select three, and they *should* fit together somewhat, I think’
 (Nuyts et al. 2010: 28)
- (13) descriptive deontic
 A: *want bij mij op school daar zou dus geen protestant binnenkomen.*
 (. . .)
 B: *en waarom zouden er geen protestant[en] bij jou op school mogen komen lesgeven?*
 ‘A: Because at my school protestants would not be allowed. (. . .)
 B: And why would protestants *not be allowed* to teach at your school?’
 (Nuyts et al. 2010: 28)

There is an obvious semantic link between imperatives and directives. In Lyons (1977: 745–746), for example, imperatives are just one grammatical way of encoding directives (or “mands”). Nuyts *et al.* (2010: 29–31) explore the relationship between directive use of modals and imperatives. They find that “to a large extent there is a division of labor between the two: the

imperative is used to express directive functions performatively (in the speech act sense), the directive modals are used to render these functions descriptively[, which] is fairly often needed in everyday language use” (2010: 30). This is based on the finding that, when directive, the Dutch modals are most frequently descriptively used: *mogen* ‘may/be allowed to’ is used descriptively in 83% (52 times) of the times that it unambiguously occurs as a directive and *moeten* in 94% (17 times) of the time (Nuyts et al. 2010: 29).

6.3. Coding the data: deciding what to include

For the twentieth century data, earlier studies – in particular Graves (1977) and Stolz (1986) – have already discussed which items have modal uses (in a broad definition): these are *kan*, *ha fo*, *fo*, *mut*, *mangkée*, *wel*, and *bin fo*. I have also included for investigation those instances where the modal item has a non-modal, lexical meaning. As will be clear in the discussions later on, for a number of items their lexical meanings are quite relevant.

The ability/possibility modal *kan* also functions as a habitual, but since Nuyts (see §6.2.1) proposes to view dynamic ability and possibility as a type of aspect that also comprises habituality, the habitual use of *kan* is relevant to include as well.

The only item that is at times problematic to distinguish is modal *fo*. This is because *fo* also functions as a complementizer introducing a reduced clause in a manipulative construction after the verbs *see* ‘say’, *fraa(g)* ‘ask’, *beedal* ‘beg’ and *bed* ‘ask’, as illustrated in (14). This is potentially confusing, because such verbs may also introduce clauses of indirect reported speech containing for example modal *fo*. In (14) we can tell that we are dealing with a manipulative construction because the verb *see* has a prepositional object.

- (14) *Am [a see a shi frou] [fo stop di kleen jung]*
 3SG PST say LOC 3S.POSS wife COMP stop DET little boy
 ‘He told his wife to stop the little boy.’
 (Roberts; de Josselin de Jong 1926: 47)

However, the manipulative construction may also take a bare indirect object:

- (15) *Dan weni di maa [a see een fandi kin] [fo loo maa fi]*
 then when DET mother PST sayINDF of DET childFO go make fire
 ‘Then, when the mother told one of her children to make fire.’
 (Roberts; de Josselin de Jong 1926: 37)

It is these manipulative constructions with bare indirect objects that may in some cases have another interpretation: i.e., that of an object clause to the verb *see*, representing an instance of indirect reported speech. In (15), the interpretation that the mother addresses all (or a part) of her children saying that ‘one of the children should go and make fire’ is inferior to the interpretation of the manipulative construction, where she directly addresses and orders only one of her children to do the job. However, in other cases the indirect reported speech interpretation (see 16b) is just as likely as the manipulative one (as in 16a).

- (16) a. *Kakatés [a see am] [fo gi am een duksak fligi].*
 Lizard PST say 3SG FO give 3SG INDF bag fly
 ‘Lizard told him to give him a bag of flies.’
 (Roberts; de Josselin de Jong 1926: 52)
- b. *Kakatés a see[:] [am fo gi am een duksak fligi].*
 Lizard PST say 3SG FO give 3SG INDF bag fly
 ‘Lizard said that he should give him a bag of flies.’
 (Roberts; de Josselin de Jong 1926: 52)

There are five such cases in total where it is impossible to decide between a manipulative and a reported speech interpretation. In the analyses in the remainder of this study, these cases of *fo* have been excluded.

- (17) *Dan weni Dzhaka rak a di hus, dan am a du shi*
 then when Jack PST reach LOC DET house then 3SG PST do 3S.POSS
han bo eekeereenfan sinu skou. Dan sinu bigin fo praat werán.
 hand on each of 3PL shoulder then 3PL begin FO talk again
Dan di kininga fin it di andə dri man wa ko fo am
 then DET king PST find out DET other three man REL come for 3SG
mi di dri meeⁿshi fa am a loo see am lik. So am a kri
 with DET three girl of 3SG PST go say 3SG lie so 3SG PST get
kwaat. So am a see [sinu fo skit sinu] fodima sinu
 angry so 3SG PST say 3PL FO shoot 3PL because 3PL
kaa praat wa no mi ret.
 PRF talk REL NEG COP right
 ‘Then when Jack reached the house, then he put his hand on each one’s shoulder. Then they [=the girls who Jack rescued and who *the other three men* pretended to have rescued] started talking again. Then the king found out that the other three man who had come to him with his three girls had lied to him. So he got angry. So he said that they must be shot, because they said what isn’t true.’
 (Roberts; de Josselin de Jong 1926: 39)

There is a sixth ambiguous example, (17), given just above. But I believe that in this example the context disambiguates *sinu fo skit sinu* as an object clause, with *fo* as an auxiliary, to the verb *see* ‘say’. The first *sinu* must be an impersonal third person plural subject that could be translated in English as a passive construction, because no participants have been introduced in the story that *sinu* could refer to.⁹⁵ Therefore, I count *fo* in *am a see sinu fo skit sinu* as a modal auxiliary.

In all other cases where *fo* occurs within the scope of the verb *see*, we can tell that *fo* is an auxiliary, either because *fo* has its own subject that is not the object of the verb *see* ‘say’, as in (17), or because of interjections or other elements separating the pronoun from the verb *see*, as in (18). In (19), the pronoun *am* refers to the reported speaker not the addressee of *see*, therefore both the interjection and *fo* having its separate subject pronoun point to *fo* being an auxiliary in (19).

- (18) *Kakatés [a see am], jaa, [am fo gi am een duksak fligi].*
 Lizard PST say 3SG yes 3SG FO give 3SG INDF bag fly
 ‘Lizard said to him, yes, he must give him a bag of flies.’
 (Roberts; de Josselin de Jong 1926: 37)

- (19) *Dan weni sinu lo du sak nee di corpse a di*
 then when 3PL IPFV do lower down DET corpse LOC DET
gat, dan am sa tumbl amsél oka kini di gat,
 hole then 3SG IRR tumble 3SG.self also inside DET hole
lo see: jaa, [am fo graaf me shi skóntaa].
 IPFV say yes 3SG FO bury with 3S.POSS stepfather
 ‘Then when they are lowering the body into the hole, then he will
 tumble himself into the hole as well, saying: “Yes, he (= the reported
 speaker) has to be buried with his stepfather.”’
 (Roberts; de Josselin de Jong 1926: 52)

In only two cases, it is just the intonation that indicates that the pronoun is the subject of the auxiliary *fo* rather than the indirect object of the verb *see*. This information is not directly recoverable, but has to be inferred from de Josselin de Jong’s use of punctuation, as in (20).

⁹⁵ World knowledge tells us that – if *sinu* is intended to refer to specific participants – it must refer to the king’s soldiers or guards, which have not been introduced in the story at all.

- (20) *Sinu a fraag am: wel, see mi, wa mi fo du mi ju.*
 3PL PST ask 3SG well say 1SG what 1SG FO do with 2SG
Am a see, [sinu fo rapó am], gooi am obu di
 3SG PST say 3PL FO pick.up 3SG throw 3SG over DET
hogis venstu sini ha daa.
 highest window 3PL have there
 ‘They asked him: “Well, tell me, what should I do with you?” He said,
 they should pick him up, throw him from the highest window that they
 have there.’
 (Roberts; de Josselin de Jong 1926: 37)

The interpretation of *fo* as a modal instead of a manipulative reduced clause is further supported by the context. The *am* in (20) refers to Anansi who is caught having broken into a house. The owners of the house then ask him what to do with him. Thus, Anansi is not in a position to give an order so the manipulative interpretation is not available. Rather, he gives them a suggestion – as a reply to their question – as to how they should punish him and at the same time get rid of him.

Thus, I hope to have demonstrated that all cases where there is any reason to doubt the status of *fo* as a modal auxiliary have not been considered for this study.

6.4. Results for the twentieth century Dutch Creole data

Using the categories presented in §6.2 one by one, I will now scrutinize the twentieth century Dutch Creole data. I will start with the expression of necessity-related concepts, then the possibility-related concepts, and finally the expression of volition.

6.4.1. Necessity-related concepts

6.4.1.1. Situational or dynamic necessity

As was discussed in the previous section, dynamic necessity is a necessity inherent in a participant, one that follows from the situation as a whole, or one that is imposed by the circumstances. One should take into consideration that the de Josselin de Jong (1926) data set contains fictional stories and fairy-tales and that the fictional world may have a logic of its own that influences the necessities that follow from situations and circumstances.

In the case of *participant-imposed dynamic necessity*, the necessity is imposed upon the participant by the circumstances in the world surrounding it. Both *ha fo* and *fo* are used to express this type of necessity:

- (21) *Bot am a forget dā sing. Di hus na a koo nee. So am*
 but 3SG PST forget DET song DET house NEG PST come down so 3SG
a ha fo bli daa tee dā dzhumbi sini a draai werán.
 PST have FO stay there until DET zombie 3PL PST (re)turn again
 ‘But he forgot the song. The house didn’t come down. So he **had to**
 stay there until the zombies would be back again.’
 (Christian; de Josselin de Jong 1926: 35)
- (22) *Got a see, as een man ka doot siki, am fo*
 God PST say when INDF man PRF dead certain 3SG FO
maa een fraai win.
 make INDF good wind
 ‘God said that when a man is really dead, he has to break wind.’
 (J.A. Testamark; de Josselin de Jong 1926: 26)

The following example illustrates how participant-imposed necessity works with a conditional clause. The speaker asserts there to be only one way to get the horse in question to stop – either because there is only one, or because he does not want to go into other options, so based on this information, there appears to be no other way for the participant in (23) to stop the horse than to say *dzhi*. Most cases of participant-imposed dynamic *fo* are of this type – although not always with a conditional clause – of ‘in order to be able to do x, one has to do y’.

- (23) *Weni ju mangkéé am stop, ju fo see: “dzhi”!*
 when 2SG want 3SG stop 2SG FO say whoa
 ‘When you want him to stop, you **have to** say: “Whoa!”’
 (Joshua; de Josselin de Jong 1926: 21)

Participant-inherent necessity refers to human needs, such as the need to eat to stay alive. In de Josselin de Jong (1926) there are only (two) occurrences with *ha fo*:

- (24) *So Tekoma a see: jaa, di maal mi ki, ju na wes*
 so Ntikuma PST say yes DET time 1SG see 2SG NEG be
glos fo nee di heelee, fodima ju weet, mi
 gluttonous FO take DET whole because 2SG know 1SG
ha fo jet oka.
 have FO eat too
 ‘So Ntikuma said: “Yes, this time I saw that you weren’t greedy to take all of it, because you know that I **have to** eat too.’
 (Roberts; de Josselin de Jong 1926: 57)

Situational dynamic necessity refers to necessities/inevitabilities present in the situation described in the clause as a whole. Though not necessarily so, they are mostly not attributable to a participant. There are occurrences with *fo*, *mut*, and *ha fo*.

- (25) *Dzhanwus a see: fraa sini apé də dibəl kop. [...] Am a see*
 Dzhanwus PST say ask 3PL where DETdevil head 3SGPSTsay
də kining:ki as di ha tong bini sini. Dan Pusbergi
 DET king see if 3.INAN have tongue inside 3PL ThenPush-mountain
a see: api kop bee, tong fo wees daa.
 PST say wherehead be tongue FO be there
 ‘Dzhanwus said: “Ask them where the devil’s heads are.” (...) He said
 to the king: “See if there are any tongues inside them.” Then Push-
 Mountain said: “Where there is a head/are heads, there needs/need to
 be a tongue/tongues.”’
 (Joshua; de Josselin de Jong 1926: 18)

- (26) *See, am loo loo a di kining loo complain*
 say 3SG PROSP go LOC DET king PROSP complain
fo am a wees da a di zéewatə loo nee
 because 3SG PST be there LOC DET sea.water PROGtake
shi bat, dan sini kaa koo goi een héélə hoop
 3S.POSS bath then 3PL PRF come throw INDF whole heap
mi kuikaka bo am, kaa mos am upside down me
 with cow’s.muck on 3SG PRF spill 3SG upside down with
kuikaka. So am a see, i nooit sa du,
 cow’s.muck so 3SG PST say 3.INAN never IRR do
am mut loo a di kining.
 3SG must go LOC DET king
 ‘He said, he is going to go to the king to complain, because he was
 there in the sea taking his bath, when they had come and thrown a
 whole lot of cow’s muck on top of him, and spilled it over him from
 top to toe. So he said, it will never do, he has to go to the king.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 29)

- (27) *Sinu bi da a en garden tee weni di here ko*
 3PL be there LOC INDF garden until when DET lord come
fo sini lo a hewun mi di here, bot di lelik sinu,
 COMP 3PL go LOC heaven with DET Lord but DET bad 3PL
ju ha fo fin sini alma a pat abini di bus.
 2SG have FO find 3PL all LOC path inside DET forest
 ‘They are there in a garden until when the Lord comes to take them
 with him to heaven, but you have to find the bad [souls] on the
 road/when you are on your way in the forest.’
 (Roberts; de Josselin de Jong 1926: 67)

6.4.1.2. Epistemic certainty/probability

Epistemic modality expresses an indication of the estimation of the truth or validity of the situation expressed in the clause. Of the three Dutch Creole necessity modals, only *fo* occurs in de Josselin de Jong (1926) to express the (reported) speaker’s estimation that there is a high probability that the situation expressed in the clause is true:

- (28) *Ho, Bju, ju dee ha fo sak amoléé fo*
 hear brother 2SG constantly have FO descend down COMP
lo doop kin, ju fo ha mushi kin fo lo doop.
 go baptize child 2SG FO have many child COMP go baptize
 ‘Hear, Brother, you constantly have to go down to baptize children,
 you must have many children to baptize.’
 (Roberts; de Josselin de Jong 1926: 53)

6.4.1.3. Deontic desirability

There is only one unambiguous case of *deontic desirability* in the corpus, presented below in (29). In this example, the king tells Puss in Boots that it would be desirable for himself to visit the cat’s master, given that the cat has given the king a present on behalf of his master. Thus, in (29), the king recognizes that it would be desirable for him to visit the cat’s master on the basis of social norms.

- (29) *Aⁿ draa sendreen prásént fo di kining. En di kining a see*
 3SG bring 3PL INDF gift forDET king and DET king PST say
am: een fa di dak mi ha fo loo loo ki ju meestər.
 3SG one of DET day 1SG have FO go go see 2SG master.
 ‘He brought them a gift for the king. And the king said to him: “One
 of these days I **should** go and see your master.’
 (de Josselin de Jong 1926: 15, Joshua)

6.4.1.4. *Commands, suggestions and related directives*

All three Dutch Creole necessity modals occur as *directives*, their most common function. The proto-typical – and most frequent – function of a directive with a necessity modal is to give a command or an order. The use of *fo* as a command is illustrated in (30), in bold. *Fo* in the last sentence of (30) in italics expresses a participant-imposed dynamic necessity: It is not the wish of the king to let them do the job by themselves, but something that is inevitable if his wish is to be fulfilled of nobody besides them knowing about it.

- (30) *Di kining a see am, neen, am **fo** nee shi tit*
 DET king PST say 3Sg no 3SG FO take 3S.POSS time
fo tre di batita, fodima as andə fuluk weet,
 COMP pull DET potato because when other people know
sinu sa ko mi sin kanó a dungku lo tre di
 3PL IRR come with 3PL canoe LOC night go pull DET
*batita lo frukóó. So am nu **fo** see enestə fuluk,*
 potato go sell so 3SG NEG FO say any people
di twe fan sinu dan fo fegete fo kri di abit.
 DET two of 3PL then FO fight COMP get 3.INAN outside
 ‘The king said to him, no, he **must** take his time to pull out the potatoes, because when other people know, they will come at night with their canoe to pull out the potatoes to sell [them]. So he **must** not tell anyone, the two of them will then *have to* struggle to get them out.’
 (Roberts; de Josselin de Jong 1926: 57)

The use of directive *ha fo* is illustrated in (31), and directive *mo/mut* in (32). In (31), the directive is authorized by rules and deals made between or affecting the participants involved.

- (31) A: *Wa bagin ju kaa maa?*
 what bargain 2SG PRF make
 ‘What deal did you make?’
 B: *Ju pupáá **haa fo** gi siwun jung mi seewun miⁿshi.*
 2SG father have FO give seven boy with seven girl
 ‘Your father has to give seven boys and seven girls.’
 (Joshua; de Josselin de Jong 1926: 11)
- (32) *Am a see di hou roto, am **mo** bring alma di famíli.*
 3SG PST say DET old rat 3SG must bring all DET family
 ‘He said to the old rat that he must bring his whole family.’
 (Christian; de Josselin de Jong 1926: 34)

Besides instructing others, directives can also be used for example to give someone advice or suggest something (see e.g. Portner 2007; 2012). In (33), Anansi is giving fake advice to Ntikuma on how he should go about planting his yam. Thus, the directives (in bold) are not commands.

- (33) *Tekoma a klaar it een fraai stiki gron fo plant*
 Ntikuma PST clear out INDF good piece ground COMP plant
jamus Anáánshi a ko bidríg am. So see am, weni
 yam Anansi PST come deceive 3SG so say 3SG when
am loo plant shi jamus, am fo goi sinu bini
 3SG PROSP plant 3S.POSS yam 3SG FO throw 3PL inside
een gunggu kitl. Dan am fo du mushi sout abini.
 INDF big kettle then 3SG FO do much salt inside
 ‘Ntikuma had cleared out a nice piece of land to plant yamus there.
 Anansi came to deceive him. So he said to him that when he was
 going to plant his yam, he must throw them into a big kettle. Then he
 must put a lot of salt on them.’
 (Roberts; de Josselin de Jong 1926: 37)

6.4.1.5. Distribution of the necessity modals: *fo*, *ha fo*, and *mut*

Table 6.1 presents the overall distribution of these three *necessity* modals across all informants.

Table 6.1: Overall distribution of the Dutch Creole necessity modals in de Josselin de Jong (1926) across informants

Speakers	<i>fo</i>	%	<i>ha fo</i>	%	<i>mut</i>	%	Total
Joshua	20	22	14	18	-	-	33
Prince	-	-	1	1	-	-	1
Francis	-	-	2	3	-	-	2
J.A. Testamark	2	2	2	3	-	-	4
J.A. Testamark/X	3	3	3	4	1	25	7
Joseph	-	-	2	3	-	-	2
Christian	1	1	4	5	2	50	7
Roberts	64	71	49	64	1	25	114
Total	90	99 ^a	77	101 ^a	4	100	171

^a = The percentages do not add up to 100% because they have been rounded off.

It shows how imbalanced the data are across informants: Roberts accounts for 72% and 64% of all occurrences of *fo* and *ha fo* respectively. Thus, one should be careful when interpreting these data to avoid concluding that a given pattern is representative of all nine speakers of Dutch Creole, while it may be only representative of Roberts. In Table 6.2, the number of

occurrences per 1,000 words is given to make numbers more comparable across speakers.⁹⁶

Table 6.2: The distribution of the Dutch Creole necessity modals in de Josselin de Jong (1926) per 1,000 words

	<i>fo</i>	prop ^a	<i>ha fo</i>	prop ^a	<i>mut/</i> <i>mo</i>	prop ^a	Total number of words ^b
Joshua	20	1.9	14	1.3	-	-	10,387
Prince	-	-	1	2.4	-	-	416
Francis	-	-	2	17.7	-	-	113
J.A. Testamark	2	1.3	2	1.3	-	-	1,542
J.A. Testamark/X	3	1.3	3	1.3	1	0.4	2,230
Joseph	-	-	2	1.5	-	-	1,341
Christian	1	0.6	4	2.6	2	1.3	1,551
Roberts	64	3.5	49	2.6	1	0.05	18,495
Total	90	2.4	77	2.1	4	0.1	36,748 ^c

a = proportion of items per 1,000 words.

b = The term word is used here in the sense of string of letters separated from other such strings by a space or punctuation. Hyphenated strings of letters are counted as one word.

c = The grand total of words is more than the totals per informant listed in the table, since the grand total of words represents the total number of words of all texts contributed in de Josselin de Jong (1926).

This shows that the frequency with which Joshua uses *fo* and *ha fo* is in fact not that dissimilar to J.A. Testamark and J.A. Testamark/X, although Joshua uses *fo* somewhat more frequently than *ha fo*. Roberts seems to use more modals than the other informants and uses particularly more *fo*.

6.4.1.5.1. Function

The distribution of these modals may become more meaningful once we look at how they are used. Table 6.3 shows the distribution of the necessity modals per function per informant. Only the four informants that contribute most, i.e., W.A. Joshua, J.A. Testamark/X, A. Christian, and W.H. Roberts have been included in Table 6.3, since the remaining informants combined produced only a handful of occurrences of necessity modals. (See Appendix J for the distribution of necessity modals according to function including all informants' data.)

⁹⁶ The number of occurrences per 1,000 words is distorted when informants have contributed extremely little words in comparison to others. This is particularly true for Francis, whose rate of 17.7 in Table 6.2 is extremely out of proportion.

Table 6.3: Distribution of necessity modals according to modal function per informant: Joshua, J.A. Testamark/X, Christian, and Roberts

	Roberts			Joshua		J.A. Testamark/X			Christian			Total
	<i>fo</i>	<i>ha fo</i>	<i>mut</i>	<i>fo</i>	<i>ha fo</i>	<i>fo</i>	<i>ha fo</i>	<i>mut</i>	<i>fo</i>	<i>ha fo</i>	<i>mo</i>	
Speech act												
Directive	50	11	-	12	5	3	-	-	1	1	2	86
Attitudinal												
Deontic	-	-	-	-	1	-	-	-	-	-	-	3
Epistemic	1	-	-	2	-	-	-	-	-	-	-	3
Situational												
Dynamic	9	22	1	5	6	-	3	1	-	3	-	45
Indeterminate	4	16	-	1	2	-	-	-	-	-	-	26
Total	64	49	1	20	14	3	3	1	1	4	2	162
p-value <i>fo-ha fo</i>	< .001			.265		.1			.4			

Of the three necessity modals, *mut/mo* is the least frequent and occurs only four times in the data set. Still, it is used by three different speakers.

All three items are used as directives and dynamic situationals, so there is no categorical difference between them in this respect. Only *fo* occurs as an epistemic, but there are only very few occurrences. There are even less occurrences of deontic desirability: there is one of them containing *ha fo*. Given the low number of attitudinal occurrences of the necessity modals, there is not much to conclude.

But is there perhaps a difference in distribution between the directive and the dynamic use of the modals? The distribution of Roberts (Table 6.3) shows that indeed there is: having the choice between *fo* and *ha fo* (and *mut*), he uses *fo* in 82% of the time he utters a directive (containing a necessity modal). By contrast, when he expresses a dynamic necessity or need, he uses *ha fo* most frequently, i.e., in 70% of the time. This difference is statistically significant ($p < .001$, Fisher's Exact test). In percentages, Joshua shows a similar tendency: in 71% of the time that he utters an order or a related directive, he uses *fo*. When expressing dynamic necessity or need, he uses *ha fo* in 55% of the time. However, Joshua's contribution contains too few occurrences of *fo* and *ha fo* for this difference to have any statistical significance.

6.4.1.5.2. Negation

Another remarkable difference in the distribution of the necessity modals is whether or not they are negated. The only necessity modal of which there are negated occurrences is *fo* (see Table 6.4).

Table 6.4: Distribution of necessity modals and negation per informant: Joshua, J.A. Testamark/X, Christian, and Roberts

	Roberts			Joshua		J.A. Testamark/X			Christian			Total
	<i>fo</i>	<i>ha fo</i>	<i>mut</i>	<i>fo</i>	<i>ha fo</i>	<i>fo</i>	<i>ha fo</i>	<i>mut</i>	<i>fo</i>	<i>ha fo</i>	<i>mo</i>	
Positive	52	49	1	19	14	3	3	1	1	4	2	149
Negative	12	-	-	1	-	-	-	-	-	-	-	13
Total	64	49	1	20	14	3	3	1	1	4	2	<u>162</u>
p-value <i>fo-ha fo</i>	.001			1		1			1			

Given the low number of occurrences of *mut/mo*, we can only compare *fo* and *ha fo*. Of the two, there are only negated occurrences of *fo*, and only in Roberts's contribution. This difference is statistically significant ($p = .001$, Fisher's Exact test). This may very well be related to the fact that *fo* has only one syllable and reflect a preference for a two syllable structure. In §6.4.4, we find the same pattern for the volitionals *mankée* and *wel*.

6.4.1.5.3. Directives and imperatives

As shown in Table 6.3 above, the Dutch Creole necessity modals are most frequently used as a directive. Directives can be said to be functionally in variation with imperatives (i.e., they are two different ways of formulating the same speech act):

- (34) *Een see: gi mi di hoogoo.*
 one say give 1SG DET eye
 'One [of them] said: "Give me the eye."
 (Joshua; de Josselin de Jong 1926: 13)

- (35) *Am a see a am: aa tit nu, ju fo gi mi di.*
 3SG PST say LOC 3SG COP time now 2SG FO give 1SG 3.INAN
 'He said to him: "It's time now, you must give it to me."
 (Roberts; de Josselin de Jong 1926: 40)

We saw in Table 6.2 that Joshua uses – not only in absolute numbers, but also relatively – less necessity modals than Roberts. Might this be somehow related to their use of imperatives? In Table 6.5, we see that Joshua and Roberts indeed differ significantly in their use of imperatives: Joshua uses almost four times as few directives (with a modal) as Roberts, but he uses almost two-and-a-half times as much imperatives as Roberts. Table 6.6 shows just how much these two speakers differ in this respect in relation to the size of their contribution to de Josselin de Jong (1926).

Table 6.5: Distribution of directives and imperatives: Joshua and Roberts

	Directive				%		Imperative		%		Total	
	<i>ha fo</i>	%	<i>fo</i>	%	Total							
Joshua	5	29%	12	71%	17	13	109	87	126	100		
Roberts	11	18%	50	82%	61	58	45	42	106	100		
Total	16	21%	62	79%	78	34	154	66	232	100		

Table 6.6: Number of directives and imperatives per 1,000 words: Joshua and Roberts

	Directive		Imperative		Total n words	
	n	rate/1,000 w	n	rate/1,000 w		
Joshua	17		1.6	109	10.5	10,387
Roberts	61		3.3	45	2.4	18,495
Total	78		2.7	154	5.3	28,882

6.4.2. Possibility-related concepts

6.4.2.1. Dynamic possibility and ability

In Dutch Creole, there is only one possibility modal: *kan*.⁹⁷ It is also used to express *dynamic participant-imposed possibility* or *ability*, as illustrated in (36), which expresses an (in)ability imposed upon the participant by the circumstances in the world surrounding him or her. In (36), the natural cause for the participant not being able to extract a drop of milk from the cow is explicitly mentioned in the following sentence.

- (36) *Ham a lo ondə di kui. Am a haal, am na kan kri*
 3SG PST go under DET cow 3SG PST pull 3SG NEG can get
een dröpl milək. Də kui a wees een drok kui.
 INDF drop milk DET cow PST be INDF dry cow
 ‘He went under the cow. He pulled, he **couldn’t** get a/one drop of milk. The cow was a dry cow.’
 (Joshua; de Josselin de Jong 1926: 21)

Participant-inherent dynamic ability refers to the inherent ability of a participant, as in (37).

- (37) *Ham a se am: ris də steen. Ham na kan ris də steen.*
 3SG PST say 3SG lift DET stone 3SG NEG can lift DET stone
 ‘She said to him: “Lift the stone.” He **couldn’t** lift the stone.’
 (Joshua; de Josselin de Jong 1926: 11)

⁹⁷ See Appendix K for an overview of the frequency with which *kan* has been attested in de Josselin de Jong (1926) in its various functions described in §6.4.2 per informant.

In (38), the participants inform us that they are inherently unable to see:

- (38) *Di dri fa zinə mi blin, sini ki dee een hoogoo. Ham ha*
 DET three of 3PL COP blind 3PL look through one eye 3SG PST
fraa sinə ape də Dzhogjans woon. Sinə see, sinə nə kan ki.
 ask 3PL where DET Gorgons live 3PL say 3PL NEG can see
 ‘The three of them were blind, they looked through one eye. He asked
 them where the Gorgons live. They say that they can’t see.’
 (Joshua; de Josselin de Jong 1926: 13)

Because the human body is itself governed by the laws of nature, participant-inherent dynamic ability always correlates to an external factor. In (37), this is the weight of the stone which is too high for the participant to lift. But it also holds for (38), where the blindness of the participants is caused by the fact that they do not have eyes of their own, but share one. Once they can get hold of an eye, they can see.

Situational dynamic possibility refers to a possibility (or impossibility) which is not linked to a participant but to the situation as a whole. In (39), there is simply no participant. In (40), the situation of Athena having told the hero a lie is not one of the possible scenarios.⁹⁸

- (39) *Een kleen meeⁿshi a loo draa shi pupáá frokós*
 INDF small girl PST IPFV bring 3S.POSS father breakfast
eekee dak wapi shi am lo wark. So di babún
 each day where side 3SG IPFV work so DET baboon
eekee dak stop di meeⁿshi, am jit shi pupáá
 each day stop DET girl 3SG eat 3S.POSS father
frokós. [...] So een dak di pupáá loo wak fo
 breakfast so INDF day DEF father IPFV wait for
shi frokós, no frokos kan ko.
 3S.POSS breakfast NEG breakfast can come
 ‘A little girl brought her father breakfast every day where he works.
 So the baboon stopped the girl every day, he ate her father’s breakfast.
 [...] So one day, the father was waiting for his breakfast, [but] **no**
breakfast could come.’
 (Christian; de Josselin de Jong 1926: 34)

⁹⁸ The most likely interpretation of *na kan* in (40) is that it expresses situational dynamic impossibility, i.e., ‘it is not within the bounds of possibility that Athena has lied’, rather than epistemic impossibility, so that (40) is not likely to mean ‘Athena has certainly not told him any lie’ (Jan Nuyts, p.c., 9 December 2014; see also Nuyts 2001: 214).

- (40) *Am ha see, Adinja na kan see am eenteen lik:*
 3SG PST say Athena NEG can say 3SG any lie
di fo ha sómgut am mangkéé am fo du.
 3.INAN FO have something 3SG want 3SG FO do
 ‘He said, Athena cannot have told him any lie: there must be
 something she wants him to do.’
 (Joshua; de Josselin de Jong 1926: 13)

Nuyts (2005; 2006; 2009) claims that *habitual aspect* belongs in the same category as dynamic modality. This makes sense for Dutch Creole, where the modal *kan* is also used as a marker of habitual aspect (Graves 1977: 134–137, who uses the term *iterative*; see also Stolz 1986: 181–182). The use of *kan* in (41) does not indicate an ability, but a habit, a recurrent SoA. This is a recurrent feature in many creole languages (see Holm 1988: 160–161).

- (41) *Een fa boo een tid di a ha een kleen mee"shi.*
 INDF of on INDF time 3.INAN PST have INDF little girl
Eekee folæk sini a kan rup am Rookarbús.
 every people 3PL PST HAB call 3SG Red.Riding.Hood
 ‘Once upon a time, there was a little girl. (...) Everybody called her
 Little Red Riding Hood.’
 (Joshua; de Josselin de Jong 1926: 18)

6.4.2.2. Deontic acceptability

There are not that many unambiguous cases of *deontic acceptability* in the corpus, although they are less scarce than the examples of deontic desirability. In (42), the reported speakers are two sisters *Een-hogo* ‘One-Eye’ and *Dri-hogo* ‘Three-Eye’ and their mother, collectively referred to by the third person plural pronoun *sini*.

- (42) *Den sini a see: a" nā kan ha di betā as*
 then 3PL PST say 3SG NEG can have 3.INAN better than
sini fodetma am mi islik, am glik andā folæk.
 3PL because 3SG COP horrible 3SG resemble other people
 ‘Then they said, she **should** not be better off than they are, because
 she is horrible: she looks like other people.’
 (Joshua; de Josselin de Jong 1926: 23)

They express their personal conviction that it is unacceptable for their sister *Twee-Hogo* ‘Two-Eye’, referred to by the third person singular pronoun *a"/am*, to be better off than they themselves. Thus, *nā kan* should be interpreted as an expression of deontic unacceptability. The sentence *Den*

sini a see must be interpreted to mean: ‘Then they said **to each other**’. Thus, it is not a directive speech act where the sister is prohibited from being better off.

6.4.2.3. Epistemic possibility

The possibility modal *kan* is used to express *epistemic possibility*, of which there is only one occurrence in de Josselin de Jong (1926):

- (43) *Tekoma a see am, am fo gi am nu fo di crop twee ton suku*
 Ntikuma PST say 3SG 3SG FO give 3SG now for DET crop two ton sugar
mi twaləf patakón mi een kui. Dan as am ding a am sel,
 with twelve dollar with INDF cow then when 3SG think LOC 3SG self
am kan gi am een gut obu di, as am nu overcharge
 3SG can give 3SG INDF thing over 3.INAN when 3SG NEG overcharge
am, di kining a see am, jaa, fodima wa am kaa see am fo gi
 3SG DET king PST say 3SG yes because what 3SG PRF say 3SG FO give
am, di werək a mee a di da. So di kining a gi
 3SG DET work COP more than 3.INAN there so DET king PST give
am een hondərt patakón fo shi tit mi di twee ton suku
 3SG one.hundred dollar for 3S.POSStime with DET two ton sugar
mi shi kui.
 with 3S.POSS cow
 ‘Ntikuma said to him, he must give him now for the crop two ton sugar and twelve dollar and a cow. Then when he thought to himself, he (=the king) may give him something more when he (=Ntikuma) doesn’t overcharge him, the king said to him, yes, because what he told him to give, the work is more than that. So the king gave him one hundred dollar for his time plus the two ton sugar and his cow.’
 (Roberts; de Josselin de Jong 1926: 59)

6.4.2.4. Permission

When used as a directive, *kan* is typically used to give, or in combination with negation, to deny *permission*. The use of *kan* in (44) is an example of permission, issued by the goddess Athena to the hero Perseus. Out of a list of things, she allows him to keep only one item, the Gorgon’s head, and then orders him – by using *fo* – to put it in the temple.

- (44) *Ham a see am, am mangkéé də saabəl mi di*
 3SG PST say 3SG 3SG want DET sabre with DET
sapatá mi di hut fa swatnis, taa a" gi di
 shoe with DET hat of darkness let 3SG give 3.INAN
a sini eigən eigənaa.
 LOC 3PL own owner
 ‘She said to him, she wants the sabre and the shoe and the hat of darkness, so that she can give them [back] to their owner.’
 [...]
Am a see am, am kan hou di Dzhogjans koop.
 3SG PST say 3SG 3SG can keep DET Gorgon head
Am fo du di bini di tempəl.
 3SG FO do 3.INAN inside DET temple
 ‘She said to him, he **can** keep the Gorgons’ head. He must put it inside the temple.’
 (Joshua; de Josselin de Jong 1926: 15)

6.4.3. Directives and negation

Palmer (1997) discusses with respect to directive use of modals⁹⁹ how either the proposition itself can be negated (e.g. there is no permission or no obligation) or the content of the proposition (permission or obligation not to do something). Thus, the interaction between permission and obligation and negation leads to a paradigm of six theoretical distinctions (I have adjusted Palmer’s terms to fit the current framework):

- (45) a. It is allowed that...
 b. It is not allowed that...
 c. It is allowed that... not...
 (46) a. It is required that...
 b. It is not required that...
 c. It is required that... not...

Palmer’s main point of discussion is that in the Germanic languages usually a necessity modal is involved in the negative paradigm of permission (45b or 45c), or vice versa, a possibility modal is used in the negative paradigm of obligation (46b or 46c). He shows that there is considerable variation across the languages discussed what modals are used in the two paradigms. When

⁹⁹ Palmer uses the term *deontic modality*, but in the sense of “[being] concerned with action, with “directives”, whereby the speaker permits, obliges, etc., the addressee to act in some way” (1997: 134). Thus, this completely equals the use of the term directive in the framework used for this study.

using sentences with a modal auxiliary, these may take the following shape in English.¹⁰⁰

- (47) a. John **can/may** buy a new shirt. (permission)
 b. John **can't/may not** buy a new shirt. (prohibition = lack of permission)
 c. (John **needn't** buy a new shirt.) (?permission not to)
- (48) a. John **must** buy a new shirt. (order)
 b. John **needn't** buy a new shirt. (lack of order)
 c. John **mustn't** buy a new shirt. (order not to)

We see that in the English paradigm there is an overlap between permission not to ('it is allowed that not'), as in (47c), and a lack of order ('it is not required that'), as in (48b).¹⁰¹ In de Josselin de Jong (1926), there are no (identifiable) attestations of directives expressing a lack of order or permission not to, so we can complete the above paradigm for Dutch Creole only partially:

- (49) a. *kan* (permission)
 b. *no kan* (prohibition; lack of permission)
 c. not attested (permission not to)
- (50) a. *fo/ha fo/mut* (order)
 b. not attested (lack of order)
 c. *nu fo* (order not to)

Dutch Creole has the ability to make a formal distinction between prohibition (or lack of permission), using *nə kan* illustrated in (51), and an order not to, for which *nu fo* is used as illustrated in (52).

¹⁰⁰ Using the auxiliaries provided by Palmer (1997: 136). Palmer does not mention the semi-modals, such as *have to*, although they may of course also occur in these paradigms.

¹⁰¹ Palmer (1997: 142) remarks that "[i]t is debatable whether saying there is no need (or necessity) to act is the same as giving permission not to." I agree and would suggest that probably it is not possible to express the concept of *permission not to* using a modal auxiliary in English. Although theoretically perhaps not identical, these two concepts are functionally so similar that one can easily use a *lack of order*, when really *permission not to* is intended.

- (51) *Fadə Jusias a see am, də kining kaa nee*
 father Acrisius PST say 3SG DET king PRF take
shi mumáá. (...) So di jung a nee shi maa.
 3S.POSS mother so DET boy PST take 3S.POSS mother
Am ha du am bini də templ fo fik di.
 3SG PST do 3SG inside DET temple COMP sweep 3.INAN
Am weet, di kining nə kan lo a di templ.
 3SG know DET king NEG can go LOC DET temple
 ‘Father Acrisius told him that the king had taken his mother. (...) So
 the boy took his mother. He put her inside the temple to sweep it. He
 knew that the king can’t go into the temple.’
 (Joshua; de Josselin de Jong 1926: 12)

- (52) *Weni di jung man a draag am a hus wapi*
 when DET young man PST carry 3SG LOC house where
shi maa mi shi taa a wes, am a
 3S.POSS mother with 3S.POSS father PST be 3SG PST
see am, jaa, am nu fo lista shi maa nit
 say 3SG yes 3SG NEG FO let 3S.POSS mother not
een fulok fo kis am fodimaa am kaa fogéét
 one people FO kiss 3SG because 3SG PRF forget
eekeegut wa kaa happen tesən di twee fan sinu.
 everything REL PRF happen between DET two of 3PL
 ‘When the young man brought her home where her mother and father
 were, she said to him, yes, he mustn’t let his mother, not anyone, kiss
 him, because he will have forgotten everything that happened between
 the two of them.’
 (Roberts; de Josselin de Jong 1926: 41)

However, just as the notions of permission not to and a lack of order are functionally very similar, so are the notions of prohibition and an order not to. We see this illustrated in the Dutch Creole example (53), where *nu kan* and *nu fo* alternate in two almost succeeding sentences with the same tenor (underlined).¹⁰²

¹⁰² The underlined sentences in (53) are passive. Therefore, the ones who the directives are directed to are not mentioned in the sentences themselves. They are of course the ones about to bury the body.

- (53) *Tekoma astuwod ko doot. Dan nu Anáánshi am ha*
 Ntikuma afterwards come dead then now Anansi 3SG have
fo lo graaf me shi skóntaa. Am a maa een
 FO go bury with 3S.POSS father.in.law 3SG PST make INDF
bargain me Kakatés. Kakatés a see am fo gi am
 bargain with Lizard Lizard PST say 3SG FO give 3SG
een duksak fligi. Kakatés fo kri bo een groot boom. Dan
 INDF bag fly Lizard FO geton INDF big tree then
weni sinu lo du sak nee di corpse a di gat,
 when 3PL IPFV do lower down DET corpse LOC DET hole
dan am sa tumbl amsél oka kini di gat, lo
 then 3SG IRR tumble 3SG.self also inside DET hole IPFV
see: jaa, am fo graaf me shi skóntaa. So Kakatés
 say yes 3SG FO bury with 3S.POSS father.in.law so Lizard
fo bli bo di boom, anturt am weni di fuluk sinu
 FO stay on DET tree answer 3SG when DET people 3PL
alma lo sing, fo kreew it, see: neen, di leef nu
 all IPFV sing FO shout out say no DET living NEG
kan graaf me di doot! *Dan am sa see; jaa, ju*
 can bury with DET dead then 3SG IRR say yes 2SG
kaa ho, wa dā here abobo kaa see: dā leef
 PRF hear what DET lord above PRF say DET living
nu fo graaf me di doot.
 NEG FO bury with DET dead
 ‘Afterwards, Ntikuma died. Anansi then had to be buried with his
 father-in-law. He made a bargain with Lizard. Lizard told him to give
 him a bag of flies. Lizard should get on a big tree. Then, when the
 body would be lowered into the hole, then he [Anansi] would throw
 himself into the hole, too, saying that, yes, he must be buried with his
 father-in-law. So Lizard must stay on the tree and answer him when
 all the people are singing, he must shout and say: “No, the living
 cannot be buried with the dead.” Then he [Anansi] would say: “Yes,
 you heard what the Lord above said: “The living must not be buried
 with the dead.”’”
 (Roberts; de Josselin de Jong 1926: 52)

6.4.4. Volition

The concept of *volition* concerns the expression of a desire. Nuyts (2009: 199–202) discusses the cognitive operations involved when someone plans an action of any kind. This leads to the following scheme that makes explicit the functional relation between qualifications and expressions of SoAs,

volitional expressions, intentional expressions and illocutionary force markers, such as directives and imperatives:

(54) <i>Level of cognitive operation</i>	<i>Reflection in language</i>
conceptual analysis	expression of SoAs and
(incl. qualification of SoAs)	qualifications
↓	
decision that something should	volitional expression
change in the world	
(state of wanting a change)	
↓	
decision to act (verbally or manu-	intentional expression
ally) so as to change the world	
(state of intending to act)	
↓	
action: communicative motor	illocutionary force marker
(Nuyts 2009: 202)	

For this study, I look at the following two items that are used in de Josselin de Jong (1926) to express volition: *mangkée*, as in (55), and *wel/wil*, as in (56).

- (55) *Een dag am a see di hou muláá, am mangkéé*
 INDF day 3SG PST say DET old miller 3SG want
loo a shi mumáá.
 go LOC 3S.POSS mother
 ‘One day, he said to the old miller that he wants go to his mother.’
 (Joshua; de Josselin de Jong 1926: 21)

- (56) *So dí kleenjung nu a wil hou stil fodima di kleen jung*
 so DET little boy NEG PST VOL keepquiet because DET little boy
a ki wa kaa giskit areesal, fodima am mangkéé fo
 PST see what PRF happen already because 3SG want FO
shi shishi fo ki shi word mi so. So am sing di sing
 3S.POSS sister COMP see 3S.POSS word COP so so 3SG sing DET song
tee di jung man a draai een befergi a taful.
 until DET young man PST turn INDF boar LOC table
 ‘So the little boy didn’t want to keep quiet, because the little boy saw
 what had happened, because he wanted his sister to see that he had
 spoken the truth. So he sang the song until the young man turned into
 a boar at the table.’
 (Roberts; de Josselin de Jong 1926: 47)

When there is no complement verb, *mangkée* mostly expresses volition (57), but occasionally also the sense of need (58) (see also §6.5 and §6.7.4).

- (57) *Een dag, wene ham ha lo werək, ham a see*
 INDF day when 3SG PST IPFV work 3SG PST say
di andə sendr, am kan jit kalkún, wanə am mangkéé.
 DET other 3PL 3SG can eat turkey when 3SG want
 ‘One day, when he was working, he said to the others, that he could eat turkey, whenever he wanted.’
 (Prince; de Josselin de Jong 1926: 25)

- (58) *Am sa gi di a am betji betji fodima weni a*
 3SG IRR give 3.INAN LOC 3SG bit bit because when PST/3SG
gi di a am, Anáánshi lo a shi hus weni am no
 give 3.INAN LOC 3SG Anansi go LOC 3S.POSS house when 3SG NEG
bi da lo dif am. So Tekoma a see di kining; jaa. Weeni
 be there go steal 3SG so Ntikuma PST say DET king yes when
am ko a am, am sa nee dzhis wa am mangkéé, so am
 3SG come LOC 3SG 3SG IRR take just what 3SG want so 3SG
sa lista di andu a am.
 IRR leave DET other LOC 3SG
 ‘He [=the king] would give it [=Ntikuma’s payment in food and money] to him [=Ntikuma] bit by bit, because when he gave it to him [all at once], Anansi would come to his place when he isn’t there to rob him. So Ntikuma said to the king: “Yes”. When he [=Ntikuma] would come to him [=the king] [to collect his payment], he would take just what he needs, so he would leave the rest with him [=the king].’
 (Roberts; de Josselin de Jong 1926: 56)

When there is no complement verb, *wel* expresses a positive attitude (or a negative one when *wel* is negated) similar to English ‘like’ or ‘love’:

- (59) *Een tid di a ha een frou. Ham a ha dri kin.*
 INDF time 3.INAN PST have INDF woman 3SG PST have three child
 [...] *Di een wa ha een hogo mi di een wa ha dri*
 DET one REL have one eye with DET one REL have three
hogo sini na wel di een wa ha twee hogo.
 eye 3PL NEG like DET one REL have two eye
 ‘Once upon a time there was a woman. She had three children. (...) The one who had one eye and the one who had three eyes did not like the one who had two eyes.’
 (Joshua; de Josselin de Jong 1926: 22)

So how can one distinguish between the volitional sense and the sense of ‘liking’ or ‘disliking’ when there is a complement verb? The sense of ‘liking’/‘disliking’ is a property of humans that is relatively time stable; it can therefore be seen as a characteristic feature (Krifka et al. 1995: 3–4, 16–17) giving the situation described in the complement verb a habitual interpretation, like *to cook* in (60). This means that an utterance such as (60) can be uttered regardless of whether the speaker is cooking or not.

(60) I like to cook.

By contrast, volitional utterances are characteristic only during the time leading up to the realization of the situation described by the complement verb. The particular desire comes to an end, once it has been fulfilled. However, there is a difference between performative volition, with first person subjects referring to the speaker or second person subjects referring to the addressee in interrogatives, and descriptive volition. In case of descriptive volition, the speaker refers to someone else’s desire. When *wel* is used in the folk narratives of de Josselin de Jong (1926), there is often a strong implication of realization of the behavior resulting from the desire that *wel* expresses. A good illustration of this can be found in (56) above where the context makes it clear that the participant in question does not just have a desire to remain silent, as expressed by *wil*, but actually acts upon it.

A volitional utterance can itself receive a habitual interpretation as an habitually recurring desire:

(61) On Friday’s I want to eat pizza.

Despite that it refers to the speaker’s own desire, a case as (61) is descriptive, since the speaker does not express a present desire but rather presents one of his characteristic features. Also here, as a conversational implicature, the speaker who utters (61) intends more than just having this recurrent desire, it is also implied that he generally eats a pizza on Friday’s, unless the context overrides this implicature.¹⁰³

Again, this is how *wel* is used in the de Josselin de Jong’s folk narratives, as in (62). In that example, the mother (the subject) habitually (i.e., whenever the father is not there) refuses to give one of her children its food on its plate.

¹⁰³ A sentence such as *At 11 pm I always want to eat something, but I have learnt to control myself* shows that the actualization of the desire is only an implicature that can be overridden by context.

- (62) *Ju no wel gi mi jet bini di bak mi ju*
 2SG NEG VOL give 1SG food inside DET plate with 2SG
andu kin sinu weni mi taa no bi hi.
 other child 3PL when 1SG father NEG be here
 ‘You don’t want to give me [= you never give me] food on my plate
 [unlike] with your other children when my father isn’t there.’
 (Roberts; de Josselin de Jong 1926: 42)

The following fragment is the beginning of a folk narrative and sets the scene before the actual story begins. At first sight, it may be difficult to determine whether *wel* refers to the man’s characteristic property of disliking to work or of his recurrent refusal to work. But the sentences that follow it describe a recurrent situation resulting from the man’s refusal to work. On this basis, I count *wel* in (63b) as expressing volition.

- (63) a. *Een fa bo en tid, di a ha een hou man*
 INDF of on INDF time 3.INAN PST have INDF old man
mi en hou frou.
 with INDF old woman
 ‘Once upon a time, there was an old man and an old woman.’
 b. *Di hou man am na wel werək.*
 DET old man 3SG NEG VOL work
 ‘The old man didn’t want to work.’
 c. *Di frou a kaa nee də beezənstok. Am slaa am mi*
 DET woman PST HAB take DET broomstick 3SG hit 3SG with
di. Mushi dungku am slap bini di horse-stable
 3.INAN much night 3SG sleep inside DET *kabái-stal*.
 ‘The woman would take her broomstick. She would hit him with it.
 Many nights he slept in the stable.’
 (Joshua; de Josselin de Jong 1926: 23–24)

The use of *wel/wil* and *mangkée/mankeer* is further discussed in §6.7.4.

The two volitional modals differ in their distribution with respect to negation. Both Joshua and Roberts use *mangkée* predominantly in a positive context, as in (64), whereas *wel* is predominantly used in combination with a preverbal negation marker (*na*, *no*, or *nu*), as in (65).

- (64) *Mi mangkéé mata ju.*
 1SG want kill 2SG
 ‘I want to kill you.’
 (A.C. Testamark; de Josselin de Jong 1926: 32)

- (65) *Anáánsi a weet, bot am na wel praat.*
 Anansi PST know but 3SG NEG VOL talk
 ‘Anansi knew, but he didn’t want to talk.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 29)

This pattern is statistically significant (Fisher’s Exact test, $p < .001$) for both Joshua and Roberts (see Table 6.7).¹⁰⁴ Very possibly, this pattern relates to the difference in number of syllables. A tendency for two-syllable words could explain a preference for the two-syllable *mangkée* in positive contexts and the one-syllable *wel* in negative contexts where the preverbal marker adds a syllable to the whole construction. This is supported by the fact that we find the exact same pattern with the necessity modals *fo* and *ha fo* (see § 6.4.1.5.2).

Table 6.7: Distribution of volitionals *mangkée* and *wel* and negation: Joshua and Roberts

	Roberts		Joshua	
	<i>mangkée</i>	<i>wel</i>	<i>mangkée</i>	<i>wel</i>
Positive	13	3	5	-
Negative	1	13	-	9
Total	14	16	5	9
Fisher’s Exact test	$p < .001$		$p < .001$	

6.4.5. Auxiliary or serial verb

So far I have referred to Dutch Creole *kan*, *ha fo*, *fo*, *mut*, *mangkée*, and *wel* as modal auxiliaries, or simply modals. The four modals that do not contain *fo* already, have alternative constructions in which the VP in the scope of the modal is introduced by complementizer *fo*. Compare the two constructions in (66a,b)–(69a,b).

- (66) a. *Mi mangkée draai een steen.*
 1SG want turn INDF stone
 ‘I want to turn into (a) stone.’
 (Joshua; de Josselin de Jong 1926: 13)
- b. *Bru Lion a mangkée fo jit Bru Fergí.*
 brother Lion PST want COMP eat brother Pig
 ‘Brother Lion wanted to eat Brother Pig.’
 (Roberts; de Josselin de Jong 1926: 39)

¹⁰⁴ The other informants produced too few instances of *mangkée* or *wel*.

- (67) a. *Am no a wel gloof mi.*
 3SG NEG PST VOL believe 1SG
 ‘He didn’t want to believe me.’
 (Roberts; de Josselin de Jong 1926: 67)
- b. *So ons wel fo ki di.*
 so 1PL VOL COMP see 3.INAN
 ‘So we want to see it.’
 (Roberts; de Josselin de Jong 1926: 38)
- (68) a. *Ju nu kan draai een lion.*
 2SG NEG can turn INDF lion
 ‘You cannot turn into a lion.’
 (Joshua; de Josselin de Jong 1926: 15)
- b. *Am a kan fo bli da staan.*
 3SG PST can COMP stay there stand
 ‘She could remain standing there.’
 (Roberts; de Josselin de Jong 1926: 45)
- (69) a. *Am mut loo a di kining.*
 3SG must go LOC DET king
 ‘He has to go to the king.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 29)
- b. *Am mut fo lo fo ho di waargeet fan di gut.*
 3SG must COMP go COMP hear DET truth of DET thing
 ‘He had to go to hear the truth about it.’
 (Roberts; de Josselin de Jong 1926: 59)

Table 6.8: Distribution of modal + VP versus modal + *fo* + VP

Speakers	<i>mangkée</i>	+ <i>fo</i>	<i>wel</i>	+ <i>fo</i>	<i>kan</i>	+ <i>fo</i>	<i>mut/mo</i>	+ <i>fo</i>
Joshua	6	-	8	-	54	-	-	-
Prince	-	-	-	-	1	-	-	-
Francis	-	-	-	-	1	-	-	-
J.A. Testamark	-	-	-	-	3	-	-	-
J.A. Testamark/X	-	-	2	-	8	-	1	-
A.C. Testamark	2	-	-	-	2	-	-	-
Joseph	2	-	-	-	5	-	-	-
Christian	2	-	-	-	8	-	2	-
Roberts	-	15	15	1	129	1	-	1
Total	12	15	25	1	211	1	3	1

The distribution in Table 6.8 shows that only Roberts uses the forms with complementizer *fo*, and they are only relatively common with *mangkée*. However, we cannot dismiss the use of complementizer *fo* with modals as an idiosyncrasy, since Sabino (2012: 186–187) reports that Mrs. Stevens was variable in this respect, too, with both *mangkée* and *wel*.

Sabino (2012: 185–187) argues that *mangkée* and *wel* as in (66a) and (67a) “are better analyzed as major verbs in symmetrical serial verb constructions”, rather than as modal auxiliaries. Given that serializing in general is a frequent syntactic strategy in Dutch Creole, it is an appealing analysis for the Dutch Creole volitionals, but one that deserves much more discussion than I have space to devote to here.

I just want to point out that under Aikhenvald’s (2006) definition of serial verb constructions, which is the one that Sabino (2012) adopts, Dutch Creole *kan* and *mut* can also be seen as part of a serial verb construction. But since I believe this issue deserves a proper, more indepth discussion of its own, I will provisionally continue to refer to all items discussed in this chapter as (modal) auxiliaries on the basis of their grammatical function, without taking a stance in the matter of which of these items are and which ones are not part of a serial verb construction.

6.5. Comparison of the nineteenth and twentieth century data

The late nineteenth century data provide us with an opportunity to compare the modals used with those used in de Josselin de Jong (1926). Table 6.9 shows that both *fo* and *ha fo* occur as necessity modals.

Table 6.9: Functions of necessity and possibility modals in the nineteenth century data

	Pontoppidan (1881)			A. Magens (1883)			Total
	<i>fo</i>	<i>ha fo</i>	<i>kan</i>	<i>fo</i>	<i>ha fo</i>	<i>kan</i>	
Speech act							
Directive	-	-	-	-	1	-	1
Attitudinal							
Deontic	-	-	-	-	-	-	-
Epistemic	-	-	-	1	-	-	1
Situational							
Dynamic	-	-	4	-	2	3	10
Habitual			-			1	1
Indeterminate	2	-	-	2	1	1	5
Total	2	-	4	3	4	5	18

In Magens's (1883) letter, *ha fo* is used among other things for dynamic necessity, as in (70). *Fo* occurs as a marker of epistemic probability, as shown in (71).

- (70) *As sen mankee en eeneste gut meer,*
 when 3PL want INDF any thing more
sen ha fo koop di fan sen eegen stibbo.
 3PL have FO buy 3.INAN of 3PL own money
 'When they wanted (needed) anything else, they had to buy it from their own money.'
 (Magens 1883, published in Schuchardt 1914: 129)

- (71) *Dann een van di frow sender wa ka stann*
 then one of DET woman 3PL REL PRF stand
desbi di mænschi ha sæ: "Na big am fo ha.
 nearby DET girl PST say FOC belly 3SG FO have
Na betterfo ruup en dokter;
 COP better COMP call INDF doctor
 'Then one of the women who was standing close to the girl said: "She must be pregnant. It's better to call a doctor."'
 (Magens 1883, published in Schuchardt 1914: 131)

There is one occurrence of *kan* in Magens's (1883) letter where *kan* has a habitual reading (72). This example is from a description of the activities of the people of St. Thomas on a typical day,

- (72) *As sen kan krie fo jeet, sen been lei fo werrek....*
 when 3PL HAB get COMP eat 3PL COP lazy COMP work
Disó bé di manii fan leff fan di power follek.
 this COP DET way of live/life of DET poor people
 'When they are given their food, they are lazy for work. (...) This is the way of life of the poor.'
 (Magens 1883, published in Schuchardt 1914: 128)

There is also an example of *kan* that is indeterminate between a habitual and a dynamic reading (73). The example is from a description of how the people used to live on St. Thomas back in the days of slavery.

- (73) *Elkereen ha krii stekki gronn van sen mæster fo plant sen*
 everyone PST get piece ground of 3PL master COMP plant 3PL
negerjeet. Sen a kan plant boonschi ..., pampuun, giámbo,
 black.man-food 3PL PST can plant bean pumpkin okra
suut báttata, kongkomber, kassaw. Fan alma di gut sender
 sweet potato cucumber cassava of all DET thing 3PL
hisó sen ha kook sen sopp.
 here 3PL PST cook 3PL soup
 ‘Everyone had got their own piece of land from their master to plant
 their food. They could plant/planted beans (...), pumpkin, okra, sweet
 potatoes, cucumber, and cassava. Of all these things they prepared
 their soup.’
 (Magens 1883, published in Schuchardt 1914: 131)

Finally, Table 6.10 compares the use of the volitional items, *wel* and *mangkée*, with how they are used in de Josselin de Jong (1926), as an auxiliary and as a full verb.

Table 6.10: Meaning of the volitional items in nineteenth and twentieth century sources

Source	With complement verb		As a full verb	
	<i>wel</i>	<i>mangkée</i>	<i>wel</i>	<i>mangkée</i>
A. Magens	‘like/love’, volition	volition	‘like/love’	ind ‘want/need’
Pontoppidan	-	volition	‘like/love’	-
Joshua	volition	volition	‘like/love’, ‘want’	‘want’, ‘need’
Prince	-	-	‘want’	‘want’
J.A. Testamark	-	-	-	‘want’
J.A. T’mark/X	volition	-	-	-
A.C. Testamark	-	volition	-	‘want’
Joseph	-	volition	‘like/love’	‘want’, ‘need’
Christian	-	volition	-	-
Roberts	volition	volition	‘want’	‘want’, ‘need’
Nelson	‘like/love’	volition	-	-

In the Magens letter, there are two occurrences of *wel* with a complement verb: one of them, shown in (74), has a volitional sense, as is typical for how it is used in de Josselin de Jong (1926).

- (74) *Dann di ander frow ha sæ: “ju ondangbarbæs, mi ha sæ*
 then DET other woman PST say 2SG ungrateful beast 1SG PST say
ju die waargeit, wa du ju kinn, an ju no wæ gloof.
 2SG DET truth what do 2SG child and 2SG NEG VOL believe
 ‘Then the other woman said: “You ungrateful creature, I told you the
 truth about what was the matter with your child, and you didn’t want
 to believe it.”’
 (Magens 1883, published in Schuchardt 1914: 131)

By contrast, the other example expresses a disposition, probably by extension of the sense of ‘like’:

- (75) *As sen kan krii fo jeet, sen been lei fo werrek...*
 when 3PL HAB get COMP eat 3PL COP lazy COMP work
Sen well fo geerá an fegeté testen makander.
 3PL like COMP quarrel and fight between each.other
 ‘When they are given their food, they are lazy for work. They like to
 quarrel and fight with each other.’
 (Magens 1883, published in Schuchardt 1914: 128)

With a complement verb, *mangkée* always has a volitional meaning:

- (76) *Mi ka fragg en maenschi fan en how creol familli*
 1SG PRF ask INDF girl of INDF old creole family
fo hellep mi, mi ka fragg am na Ingis wa mi
 COMP help 1SG 1SG PRF ask 3SG LOC English what 1SG
mankee fo sæ, an am sæ mi hosó fo sæ na Creol.
 want FO say and 3SG say 1SG how COMP say LOC Creole
 ‘I asked a girl from an old creole family to help me, I asked her in
 English what I wanted to say, and she told me how to say it in Creole.’
 (Magens 1883, published in Schuchardt 1914: 127)
- (77) A: *Wat ju sal ha fo dinner?*
 what 2SG IRR have for dinner
 ‘What are you having for dinner?’
 B: *Mi no weet, mi wel bak fes mit vak banana;... Mi wonder,*
 1SG NEG know 1SG like fried fish with cooking.banana 1SG wonder
as die ha eniste nyw na taphus; mi mankee loop fo
 if 3.INAN have any new LOC town 1SG want go COMP
weet die nyw.
 know DET new
 ‘I don’t know, I like fried fish with cooking banana; I wonder if
 there is anything new in town; I want to go find out what is new.’
 (Pontoppidan 1881: 138)

Thus, although there is only a limited number of occurrences of modals in the nineteenth century data, they allow us to conclude the following: a) the nineteenth century data contain the same modal items – with the exception of *mut/mo* – as the twentieth century data; b) these items have the same functions; at a more specific level, in the nineteenth century data too, *ha fo* is attested as a dynamic situational and a directive, *kan* occurs as a dynamic situational and as an habitual, and *wel* is a volitional as well as a main verb expressing the sense of ‘like/dislike’.

6.6. Comparison of the eighteenth and the twentieth century data

In the eighteenth century Dutch Creole data, we find almost all of the modal items also used in de Josselin de Jong (1926), but only the item *kan* is used in the eighteenth century data with roughly the same functions as in the late nineteenth and twentieth century data: dynamic ability/possibility (78), habituality (79), and permission (80).

- (78) *Baas! die ben waar, mi no a wil wasch si voet,*
 pastor 3 COP true 1SG NEG PST VOL wash 3S.POSSfoot
em kan wasch sender self.
 3SG can wash 3PL self
 ‘Father! It’s true, I didn’t want to wash his feet, he can wash them himself.’
 (Oldendorp nd.b, cited in Stein 2010: 250)

- (79) A: *Baas! die wief mi ha, die no fraai. Em no dien mi fraai*
 pastor DET wife 1SG have 3 NEG good 3SG NEG serve 1SG good
 ‘Father! That wife of mine, she’s no good. She doesn’t serve me well (...).’
 B: *Baas! die no ben waar, wat Kupido praat. Toevoor mi a kan*
 pastor 3 NEG COP true what Kupido talk before 1SG PST HAB
dien em, dat ons a wees heel toevreden mee malkander: maar
 serve 3SG there 1PL PST COP very happy with each.other but
noe em no wil mi meer, em ha een ander.
 now 3SG NEG like 1SG more 3SG have INDF other
 ‘Father! What Kupido is saying is not true. I used to serve him
 before, [and] then we were very happy together. But now he
 doesn’t want/like/love me anymore, he’s got another one.’
 (Oldendorp nd.b, cited in Stein 2010: 254)

- (80) *Wanneer jender ha tied, jender kan kom weeraan.*
 when 2PL have time 2PL can come again
 ‘When you have time, you can come again.’
 (Oldendorp nd.b, cited in Stein 2010: 252)

In the eighteenth century data the distribution of necessity modals is exactly opposite to the situation in the twentieth century data: *mut* – written by the Moravians and the Dane Lund as *moe(t)* following Dutch spelling – is the standard and there are less than a handful of occurrences of contiguous *hab vor* that express necessity (see Table 6.11).

Table 6.11: Distribution of necessity modals in eighteenth century sources and de Josselin de Jong (1926) per 1,000 words

	<i>fo</i>	prop ^a	<i>ha fo</i>	prop ^a	<i>mut</i>	prop ^a	Total n words ^b
Eighteenth century German-speaking authors							
Oldendorp	-	-	-	-	14	6.1	2,306
Auerbach <i>Bible</i>	-	-	2	0.08	13	0.5	26,295
Auerbach	-	-	3	4.7	1	1.6	633
Böhner <i>Bible</i>	-	-	-	-	47	0.6	74,616
Böhner	-	-	-	-	1	0.9	1,078
Total	-	-	5	0.05	76	0.7	104,928
Eighteenth century Danish-speaking authors							
Kingo	-	-	-	-	3	1.8	1,684
Psalmbuk	-	-	-	-	18	2.5	7,087
Lund	-	-	-	-	193	10.0	19,377
Magens	-	-	-	-	14	3.0	4,597
Magens <i>Bible</i>	-	-	-	-	5	3.2	1,587
Total	-	-	-	-	233	6.8	34,332
Twentieth century speakers, informants of de Josselin de Jong (1926)							
Joshua	20	1.9	14	1.3	-	-	10,387
Prince	-	-	1	2.4	-	-	416
Francis	-	-	2	17.7	-	-	113
Testamark	2	1.3	2	1.3	-	-	1,542
Testamark/X	3	1.3	3	1.3	1	0.4	2,230
Joseph	-	-	2	1.5	-	-	1,341
Christian	1	0.6	4	2.6	2	1.3	1,551
Roberts	64	3.5	49	2.6	1	0.05	18,495
Total	90	2.4	77	2.1	4	0.1	36,748 ^c

^a = Proportion of modals used per 1,000 words.

^b = The term word is used here in the sense of string of letters separated from other such strings by a space or punctuation. Hyphenated strings of letters are counted as one word.

^c = The grand total of words is more than the totals per informant listed in the table, since the grand total of words represents the total number of words of all texts contributed in de Josselin de Jong (1926). Informants R. George and A.C. Testamark are not listed simply because their narratives do not contain any necessity modals.

We find eighteenth century *mut* as a directive (81), and expressing participant-imposed dynamic modality (82), and deontic modality (83).

- (81) *mie Meester ha seg mie, dat mie mut praet die*
 1SG master PST say 1SG that 1SG must talk DET
Woort na Ju Meester mie self.
 word LOC 2SG master 1SG self
 ‘My master told me to talk to your master myself.’
 (Magens 1770: 52, cited in Hesseling 1905: 140)
- (82) *En mi moe koop die vleesch. As mi no tek hand*
 and 1SG must buy DET meat when 1SG NEG put hand
na mi sak, voor koop die jeet, ons no ha jeet.
 LOC 1SG pocket COMP buy DET food 1SG NEG have food
 ‘And I have to buy the meat. When I don’t put my hand in my pocket
 to buy food, we don’t have food.’
 (Oldendorp nd.b, cited in Stein 2010: 249–250)
- (83) *Pover Volk no mut hab wil.*
 poor people NEG must have will
 ‘Poor people shouldn’t have a will.’
 (Magens 1770: 35, cited in Hesseling 1905: 138)

There is only one eighteenth century author, Moravian missionary Auerbach, who uses contiguous *hab vor* unambiguously expressing dynamic necessity (Table 11). In what we assume to be *his* Gospel Harmony translation (see §2.2.4), there is one such occurrence, which is repeated once in the text:

- (84) *Toen noe Johannes nabinne die Gevangnis a hoor die Werk-en*
 when now John inside DET prison PST hear DET work-PL
van Christus, soo em a roep twee van si Junger-s bij em,
 of Christ so 3SG PST call two of 3s.POSS disciple-PL with 3SG
en a stier sender na Jesus, en a laat vraag Em: Ben Joe
 and PST send 3PL LOC Jesus and PST let ask 3SG COP 2SG
diejeen, die a sal kom of ons hab vor verwacht een ander?
 the.one REL PSTIRR come or 1PL have COMP expect INDF other
 ‘When now John inside the prison heard about the works of Christ, so
 he called two of his disciples to him, and sent them to Jesus to ask him:
 “Are you the one, who would come or do we have to wait for another?”’
 ([Auerbach] nd: 90)

In his 1784 catechisms, Auerbach uses contiguous *hab vor* three times. One of his examples from the catechism of the Holy Communion expresses necessity most clearly, because in the answer there is explicit reference to a necessity:

- (85) [Vraag] 6. *Hoesoo ons hab dan vor ondersoek ons*
 question six why 1PL have then COMP investigate 1PL
selv, bevoor ons nader na die heilig Avendmaal?
 self before 1PL approach LOC DET holy supper
 [Antwort] 6. *Die ben nodsaklik vor weet, as ons Hert*
 answer six 3 COP necessary COMP know if 1PL heart
ben bespringelt met Jesus Bloed.
 COP sprinkled with Jesus blood
 ‘[Question] 6. Why then do we have to investigate ourselves, before we communicate? [Answer] 6. It is necessary to know if our heart is sprinkled with Jesus’s blood.’
 (Auerbach 1784: back side endpaper)

In the other two examples, where *hab vor* has *bedink* ‘consider’ as its complement verb, a necessity interpretation is most probable. Example (86) below is from Auerbach’s catechism of the Holy Baptism.

- (86) [Vraag] 9. *Wagoed die gedoopt Volk sender hab*
 question nine what DET baptized people 3PL have
for bedink dan? [Antwort] 9. *Sender no sal leev*
 COMP consider then answer nine 3PL NEG IRR live
meer for sender eigen selv, maar Jesus Christus sal leev
 more for 3PL own self but Jesus Christus IRR live
nabinne sender.
 inside 3PL
 ‘[Question] 9. What do the baptized people have to consider then?
 [Answer] 9. They will no longer live for themselves, but Jesus Christ will live inside them.’
 (Auerbach 1784: back side front endpaper)

Although Auerbach is the only eighteenth century author who used *hab vor* to express necessity, *hab vor* with a complement verb is used by five more authors, as shown in Table 6.12, who use it to express possibility rather than necessity. But most frequently, eighteenth century *hab vor* has even more distinct meanings, which will be discussed in §6.7.1.1.

Table 6.12: Functions of the modal auxiliaries in a selection of eighteenth century data (deviant functions highlighted in bold)

		<i>mut</i>	<i>hab vor</i>	<i>mankeer</i>	<i>kan</i>	<i>(no) daerf</i>	<i>(no) bin</i>	<i>no mut</i>
Danish speaking	Magens 1781 <i>Bible</i>	necessity	-	-	possibility	-	-	-
	Magens 1770	permission	-	?	-	-	-	-
	Lund 1798	necessity	-	need	possibility	-	possibility /lack need	prohibition
	Psalmbuk 1770	necessity	possibility	-	possibility	-	-	-
	Kingo 1770	necessity	possibility	-	possibility	-	-	-
		-	-	-	-	-	-	-
German speaking	Böhner s.a.<1785	necessity	possibility	-	possibility	-	-	-
	Böhner s.a. <i>Bible</i>	necessity	possibility	-	possibility	permission	-	prohibition
	Auerbach 1774/-84	necessity	necessity	-	possibility	-	-	-
	[Auerbach] s.a. <i>Bible</i>	necessity	necessity	need	possibility	permission	-	-
	Oldendorp [1768]	necessity	?	-	possibility	prohibition	-	prohibition
		-	-	-	habitual permission	-	-	-

There is another necessity-related construction in Table 6.12 that occurs in de Josselin de Jong (1926) with a similar meaning: (*no*) *bin vor*. Lund (1798) uses the construction six times in total of which there was only one occurrence with a necessity meaning. As shown in (87), in combination with negation it is used to express a lack of need.

- (87) *Rom. 13, 3. 4. Die sender, die regeer, no bin vor bang,*
 Romans 3 3PL REL rule NEG COP COMP afraid
wanneer ons doe wagoet bin vraj, maar wanneer ons
 when 1PL do what COP good but when 1PL
doe Qwaat. Daarom as joe wil wees noe sonder
 do evil therefore when 2SG VOL COP now without
Vrees voor die Owrighejt, joe doe daan, wagoet bin vraj,
 fear for DET government 2SG do then what COP good
 ‘Those who rule do not need to be feared, when we do good, but when
 we do evil things. Therefore, when you want to be without fear for the
 government, you do what is good.’
 (Lund 1798: 105)

In de Josselin de Jong (1926), there is one occurrence of *bin fo* as a necessity modal (not discussed above), given in (88).

- (88) *Tshin tshi tshan tshorio sajáán gumée,*
mi no kan mi di story numée! Mi skeep ju
 1SG NEG can with DET story no.more 1SG shave 2SG
mon, mi skeep ju baa'd! Dzhin dzho wai lap!
 mouth 1SG shave 2SG beard
As ju bin fo lak, ju lak eenmaal; as ju bin
 if 2SG COP COMP laugh 2SG laugh once if 2SG COP
fo speel, ju speel eenmaal!
 COMP play 2SG play once
 ‘*Tshin tshi tshan tshorio sajáán gumée*, I can’t take this anymore. I
 shave your mouth, I shave your beard! *Dzhin dzho wai lap!* If you
 have to laugh, you laugh once; if you have to play, you play once!’
 (Roberts; de Josselin de Jong 1926: 64)

This fragment is a “story-house song”, a song that accompanied dances held on St. Thomas and St. John at nightly festivities in honor of births and deaths (de Josselin de Jong 1926: 6–7). This particular song and its dance are described as follows:

Sung during a sort of game of forfeits. One man strokes another one's chin and cheeks as if he is shaving him and while doing this he sings: "tshin tshi tshan, etc." Consequently, the company sings: "Dzhin dzho wai lap." Then the one who shaves says: "as ju bin etc." When the man who is shaven laughs, the other takes something from him. When the one who shaves has made a number of his comrades laugh this way, they can buy their things back by letting themselves be slapped a number of times.¹⁰⁵ [translation mine] (de Josselin de Jong 1926: 64)

This context makes it clear that *bin fo* expresses dynamic necessity. A literal interpretation of *as ju bin fo lak* in the sense of 'if you're on to laugh', i.e., 'if it's your turn to laugh' does not fit the context.

So far, I have discussed items from Table 6.12 with (partly) the same function in the eighteenth as in the nineteenth and twentieth century data. However, of particular interest are the items in Table 6.12 that differ in use from the nineteenth and twentieth century data. Besides the already mentioned *hab vor*, this concerns *mankeer*, which when accompanied by a complement verb, expresses dynamic need rather than volition (although there is one ambiguous or indeterminate case in Magens (1770), where either interpretation is possible).

- (89) *Na dieselvde Tid, toen allemaal Volk a laat doop sender,*
 LOC the.same time when all people PST let baptize 3PL
da Jesus ook a kom ut Galilea van Nazareth na die Jordan
 there Jesus also PST come out Galilee of Nazareth LOC DET Jordan
tot Johannes, vor word gedoopt van em: Maar Johannes a
 to John COMP become baptized of 3SG but John PST
wei= ger Em diegoe, en a see: Mi mankeer wel vor word
 refuse 3SG 3 very and PST say 1SG need M.ADV COMP become
gedoopt van Joe, en Joe kom na mi.
 baptized of 2SG and 2SG come LOC 1SG
 'It came to pass in those days, [when all the people were baptized,]
 that Jesus came from Nazareth of Galilee to Jordan unto John, [to be
 baptized of him. But John forbad him, saying, I have need to be
 baptized of thee, and comest thou to me?] [brackets in original]
 ([Auerbach] nd: 23; English translation from Lieberkühn 1771: 21)

¹⁰⁵ "Gezongen bij een soort pandverbeuren. Een man strijkt een ander met een houtje over kin en wangen alsof hij hem scheert en zingt daarbij: tshin tshi tshan etc. Het gezelschap zingt daarop: dzhindzho, wailap. Dan de scheerder: as ju bin etc. Als de man die geschoren wordt lacht, neemt de ander iets van hem weg. Wanneer de scheerder op die manier eenige kameraden aan 't lachen heeft gemaakt, kunnen deze hun panden terugkopen door zich een zeker aantal klappen te laten toedienen."

Example (89) is from what we assume to be Auerbach's translation of Lieberkühn's Gospel Harmony, the fragment is from Matthew 11: 13–14. *Mankeer* is a translation of German *bedarf* 'need.PST' in Lieberkühn's original. That *mankeer* is intended to express necessity follows further from the English translation of Lieberkühn's Gospel Harmony, printed in 1771, where the phrase *I have need to be baptized of thee* is used. As the English translation of (89), I have provided the same fragment from Lieberkühn (1771).

Mankeer also has the sense of need when used as a full verb (90). There is however one example in Magens (1770), where *mankeer* as a full verb has a pure volitional meaning. The use of *mankeer* is discussed further in §6.7.4.

- (90) *en bet voor sender, en dien sender aster ons Vermoogen, wanneer*
 and pray for 3PL and serve 3PL after 1PL capacity when
sellie mankeer ons Help, glik as Godt ka bewiis Barmhertighejt
 3PL need 1PL help like when God PRF prove mercy
na ons
 LOC 1PL
 (Lund 1798:82–83)

A final point of interest is the use of the item *d(a)erf*, exemplified in (91), in the two Gospel Harmony translations (see Table 6.12 above).

- (91) *Welk onder jender ben, as em hab een Skaap, en die*
 which under 2PL COP if 3SG have INDF sheep and 3
vall em na bin een Gaad na die Sabbath, die no
 fall 3SG inside INDF hole LOC DET Sabbath REL NEG
vat die en haal die ut? hoe veel beeter ben noe
 grab 3 and take 3 out how much better COP now
een Mensch, as een Skaap? vordaar om volk daerf
 INDF human than INDF sheep for.that.reason people PERM
wel doe Goets na die Sab= bath.
 M.ADV do good LOC DET Sabbath
 'Who among you, when he has a sheep and it falls inside a hole on the Sabbath-days, would not grab it and get it out? How much better is a human being than a sheep? For that reason, people are allowed to do good on the Sabbath-days.'
 (Böhner nd.b: 134)

Whereas the form of all other items in Table 6.12 can be reconstructed as being derived from Dutch, *d(a)erf* derives from the first or third person

singular present form of the German verb *dürfen* ‘be allowed to’. This verb corresponds greatly to Dutch *mogen* in meaning.

Interestingly, *mogen* is the only Dutch core modal – besides *moeten* (> Dutch Creole *mut*), *kunnen* (> Dutch Creole *kan*), and *willen* (> Dutch Creole *wil/wel*) – that has not ended up in Dutch Creole sources. The prototypical function of *mogen* is that of a directive giving or denying permission. Table 6.12 has shown that *kan* – and *mut* in Magens’s Bible translation, which I will discuss below – is also used to give permission. To deny permission (prohibition) the form *no mut* is used.

Probably, since Dutch Creole *kan* has many other functions, the natively German speaking Moravian missionaries may have felt unsure of whether the desired sense of permission would be understood if *kan* had been used. Apparently, they felt a need for an item that was uniquely linked to the concepts of permission and prohibition. There are however only very few occurrences of *d(a)erf* in only few Moravian missionary sources.

The final remarkable finding is that Magens (1781) uses *mut* once to express permission:

- (92) *En sellie ha bid hem, dat sellie ha mut ruer*
 and 3PL PST request 3SG that 3PL PST must touch
alleen na die Soom van sie Kleed, en sellie almael,
 only LOC DET hem of 3S.POSS cloth and 3PL all
die ha ruer die an, a ka kom gesond.
 REL PST touch 3 V.PRT PST PRF come healthy
 ‘And they begged him, that they would be allowed to touch just the
 hem of his garment, and all they who touched it, had become healthy.’
 (Magens 1781, published in Pontoppidan 1881: 137)

This is undoubtedly the result of interference from Danish, which uses *maa* to express both permission and necessity.

6.7. Cross-variety comparison of the overall system

As already mentioned, the forms of the Dutch Creole modals (presented in Table 6.13 in order of frequency) – with the exception of *d(a)erf* – all derive from Dutch phonological material. As discussed above, *mogen* is the only high frequent Dutch modal that has not been retained in Dutch Creole (Table 6.14). *Hab vor* is composed of Dutch phonological material, but not of the same as its functional Dutch equivalent. Rather, Dutch *hebben te* has been reconstituted in Dutch Creole on the basis of the Dutch Creole items that correspond to *hebben* ‘have’ and complementizer *te* respectively, thus yielding *hab vor* ‘have to’. How *hab vor* is used in the eighteenth century

Dutch Creole data and how this relates to how seventeenth century Dutch *hebben te* was used is discussed in §6.7.1.

Table 6.13: Dutch Creole modals from most to least frequent in the twentieth and eighteenth century data respectively

Twentieth century data			Eighteenth century data		
item	n		item	n	
1. <i>kan</i>	227		1. <i>kan</i>	437	
2. <i>fo</i>	89		2. <i>wil</i>	311	
3. <i>ha fo</i>	77		3. <i>mut</i>	309	
4. <i>mangkée</i>	27		4. <i>daerf</i>	14	
5. <i>wel</i>	26		5. <i>hab vor</i>	8	
6. <i>mut</i>	4		6. <i>mankeer</i>	4	
7. <i>bin fo</i>	2		7. <i>bin for</i>	1	

Table 6.14: Dutch modal auxiliaries and their reflex in Dutch Creole

Dutch modal	1SG PRS	n ^a	Basic meaning	Present in Dutch Creole	
				Retained	Reconstituted
<i>kunnen</i>	<i>kan</i>	859	possibility	<i>kan</i>	-
<i>moeten</i>	<i>moet</i>	577	necessity	<i>moet/mut</i>	-
<i>mogen</i>	<i>mag</i>	559	permission, deontic acceptability	-	-
<i>willen</i>	<i>wil</i>	567	volition	<i>wil/wel</i>	-
<i>niet hoeven te</i>	<i>hoef niet te</i>	27	lack of need ^b	-	-
<i>hebben te</i>	<i>heb te</i>	8	deontic desirability; dynamic possibility (with object to <i>hebben</i> ‘have’)	-	<i>hab for</i>
<i>horen/dienen te</i>	<i>hoor/dien niet te</i>	2/2	deontic desirability	-	-
<i>te ... zijn</i>	<i>ben te</i>	? ^c	possibility; (necessity ^d)	-	<i>bin for?</i>

a = The rough frequency of these modals in letters from 1661–1673 in the Letters as Loot database. The count for *hebben te* includes only those where strictly only a necessity or possibility interpretation is available. This is discussed further in §7.1.3.

b = Particular for Dutch from the Netherlands. Belgian Dutch uses rather *niet moeten* (Diepeveen et al. 2006: 14–16).

c = The occurrence of *te ... zijn* has not been counted. This would have been disproportionately laborious given the fact that both *zijn* ‘be’ and *te* ‘to’ are highly frequent items and each individual occurrence would have to be scrutinized.

d = See e.g. Boogaarts (2006).

The only two modals in the eighteenth century Dutch Creole data that are not modals in Dutch are *d(a)erf* and *mankeer*. For twentieth century Dutch Creole, they are *fo* and *mangkée*. *D(a)erf* has already been discussed above in §6.5.6. Dutch Creole *mankeer/mangkée* derives from Dutch *mankeren* ‘miss, be missing’, which is itself a loan from French *manquer* with the same range of meanings. Dutch Creole *mankeer/mangkée* and its relation to Dutch *mankeren* are discussed in §6.7.4. The origin of Dutch Creole *fo* will be discussed in §6.7.2.

6.7.1. *Ha fo–mut*; lexifier or substrate influence

6.7.1.1. Dutch Creole *hab vor* in the eighteenth century data

In the eighteenth century Dutch Creole data, there are occurrences of *hab vor* ‘have to’ where the construction as a whole has an interpretation that involves possibility or necessity/obligation. Dutch and English both have a similar construction to Dutch Creole *hab vor/ha fo* that may express necessity or obligation. The historical development of these constructions is discussed in §6.7.1.3 and §6.7.1.4 respectively.

Anticipating this discussion, English *have to* and Dutch *hebben te* expressing necessity/obligation both derive from a construction in which *have* and *hebben* ‘have’ share their object with the verb introduced by the complementizers *to* and *te* ‘to’ respectively which is the purpose or the goal of the object in question:

- (93) I have a letter to mail.
(Heine 1993: 42)
- (94) *Ik heb een brood te eten.*
‘I have a bread to eat.’

Therefore, I only consider those cases of eighteenth century Dutch Creole *hab vor* where *hab* shares its object with the verb introduced by *vor*, as in (95), and of course those where *hab vor* as a whole expresses necessity/obligation or possibility.

- (95) *want sender no hab een goed vor jeet.*
because 3PL NEG have INDF thing COMP eat
‘because they don’t have anything to eat.’
(Böhner nd.b: 157)

These occurrences can be subcategorized on the basis of how much meaning *hab* ‘have’ contributes to the meaning of the construction as a whole.

First, *hab* may express a literal sense of possessing something and the verb introduced by complementizer *vor* expresses the goal, purpose or use-

fulness of having it, as in (96). Such occurrences are coded as expressing possession-possibility, since we can paraphrase the construction as ‘having something that SUBJECT *can* give’.

- (96) *Paulus verlang, dat ons sa werk en doe eenigste*
 Paul desire that 1PL IRR work and do any
vraj goet mit ons Hant sender, op dat ons moet hab
 good thing with 1PL hand 3PL so.that 1PL must have
wat, vor giev na die sender, die lie Mankement.
 something COMP give LOC 3 3PL REL lie defect
 ‘Paul wants us to work and do something good with our hands,
 because we must have something to give to those who are lacking it.’
 (Lund 1798: 16)

The second group consists of occurrences where *hab* ‘have’ is more abstract and expresses the (potential) availability of the object with which something can be done, as in (97), or must be done, as in (98).

- (97) *En onder\tüischen si Jünger-s a vermaan*
 and meanwhile 3S.POSS disciple-PL PST admonish
(bedd) Em, en a see; Rabbi, jeet. Maar Em a
 request 3SG and PST say Rabbi eat but 3SG PST
see na sender: Mi hab een kost vor jeet, van
 say LOC 3PL 1SG have INDF fare COMP eat of
die jender no weet. Da si Jünger-s a see
 REL 2PL NEG know there 3S.POSS disciple-PL PST say
onder malk ander: Een Volk ka breng jeet na Em?
 under each.other INDF people PRF bring food LOC 3SG
Jesus a see na sender: Mi jeet ben die, dat mi
 Jesus PST say LOC 3PL 1SG food COP 3 that 1SG
doe die will van Em, die ka stier mi, vor volend
 do DET will of 3SG REL PRF send 1SG COMP complete
Sie Werk.
 3S.POSS work
 ‘And meanwhile, his disciples urged him to eat, and said: “Rabbi,
 eat.” But he said to them: “I have a fare to eat, of which you don’t
 know.” On that, his disciples said to each other: “Did someone bring
 him food?” Jesus said to them: It is my food that I do the will of Him
 who has sent me to complete His work.”’
 (Böhner nd.b: 55–56)

- (98) *Van die Pligt-en, die angaan Volk na som gewis*
 of DET duty-PL REL concern people LOC some certain
Stand sender. Sonder die algemeen Pligt-en, die almaal
 position 3PL without DET general duty-PL REL all
Mensen hab vor pas op, voor soo veer sender bin
 people have COMP look.after for so far 3PL COP
Mensen, die hab ookal som besondarlig Pligt-en, die lej
 people 3 have also some special duty-PL REL lie
nabobo Volk, besondaars voordoor die Toestant en die
 on people especially because.of DET condition and DET
Amt, na die sender ka set van Godt.
 occupation LOC REL 3PL PRF put of God
 ‘Of the duties that concern people in certain positions. Beside the
 general duties that all people have to mind, in as far as they are
 people, there are also some special duties that lie upon people,
 especially because of the condition and occupation in which they have
 been put by God.’
 (Lund 1798: 97)

Most occurrences that belong to this group express something more specific, namely, the presence or absence of something to communicate. This is illustrated in (99), which is uttered by a Moravian missionary to a married enslaved couple visiting him to discuss their marital problems. An existential-possibility or necessity reading is not felicitous. Rather I would say that the modal sense in (99) is neutral and that there is only reference to what there is to communicate. The same applies in (100).

- (99) *Wagoed jender ha voor praat mee malkander.*
 what 2PL have COMP talk with each.other
 ‘What do you have to discuss with each other?’
 (Oldendorp nd.b, cited in Stein 2010: 248)
- (100) *Mi hab vor see jender noch moeschi; maar jender*
 1SG have COMP say 2PL still much but 2PL
no kan drag die noe soo.
 NEG can carry 3 now
 ‘I still have a lot to tell you, but you cannot bear it now.’
 (Böhner nd.b: 350)

Table 6.15 shows the frequency with which *hab vor* occurs in the various meanings in the eighteenth century data.

Table 6.15: Meaning of *hab vor* in the eighteenth century Dutch Creole data

	Nec	Psbl	Exist			Possess-	Charac	Ind
			Nec	Poss	Comm	Psbl		
Eighteenth century German-speaking authors								
Oldendorp	-	-	-	-	2	-	-	1
Auerbach	3	-	-	-	-	-	-	-
Auerbach	2	-		1	1		3	-
<i>Bible</i>								
Böhner <i>Bible</i>	-	-	-	1	3	3	5	-
Böhner	-	2	-	-	-	-	-	1
Total	5	2	-	2	6	3	8	2
Eighteenth century Danish-speaking authors								
Kingo	-	1	-	-	-	-	-	-
Psalmbuk	-	-	-	1	-	-	-	-
Lund	-	-	1	-	-	1	-	-
Magens	-	-	-	-	1	-	-	-
Total	-	1	1	1	2	1	-	-
Grand total	5	3	1	3	8	4	8	2

Finally, in the examples below, *hab* ‘have’ does not contribute any meaning, but *hab vor* expresses possibility (101) or necessity (102) as a whole.

- (101) *onberispelik; dat ben, as volk wandel soo rechtveerdig,*
 irreproachable that COP if people live so righteous
*dat die no **hab vor** gie ver\wiet na sender, of*
 that 3 NEG have COMP give reproach LOC 3PL or
vor vind vout na sender Wandel.
 COMP find mistake LOC 3PL behavior
 ‘Irreproachable, that is, when people live so righteously, that they can-
 not be reproached, or no mistake can be found in their behavior.’
 (Böhner nd.b: iii)

- (102) [Vraag] 9. *Wagoeddie gedoopt Volk sender **hab for** bedink*
 questionnine what DET baptized people3PL have COMP consider
dan? [Antwort] 9. Sender no sal leev meer for sender eigen selv,
 then answer nine 3PL NEG IRR live more for 3PL own self
maar Jesus Christus sal leev nabinne sender.
 but Jesus Christus IRR live inside 3PL
 ‘[Question] 9. What do the baptized people have to consider then?
 [Answer] 9. They will no longer live for themselves, but Jesus Christ
 will live inside them.’
 (Auerbach 1784: back side front endpaper)

The clearest examples of *hab vor* expressing necessity as a whole have already been discussed in §6.6, but I reproduce them here as (102)–(104).

- (103) *Toen noe Johannes nabinne die Gevangnis a hoor*
 when now John inside DET prison PST hear
die Werk-en van Christus, soo em a roep twee van
 DET work-PL of Christ so 3SG PST call two of
si Junger-s bij em, en a stier sender na
 3S.POSS disciple-PL with 3SG and PST send 3PL LOC
Jesus, en a laat vraag Em: Ben Joe diejeen, die a
 Jesus and PST let ask 3SG COP 2SG the.one REL PST
sal kom of ons hab vor verwacht een ander?
 IRR come or 1PL have COMP expect INDF other
 ‘When now John inside the prison heard about the works of Christ, so he called two of his disciples to him, and sent them to Jesus to ask him: “Are you the one, who would come or do we have to wait for another?”’
 ([Auerbach] nd: 90)

- (104) *[Vraag] 6. Hoesoo ons hab dan vor ondersoek ons*
 question six why 1PL have then COMP investigate 1PL
selv, bevoor ons nader na die heilig Avendmaal?
 self before 1PL approach LOC DET holy supper
[Antwort] 6. Die ben nodsaklik vor weet, as ons Hert
 answer six 3 COP necessary COMP know if 1PL heart
ben bespringelt met Jesus Bloed.
 COP sprinkled with Jesus blood
 ‘[Question] 6. Why then do we have to investigate ourselves, before we communicate? [Answer] 6. It is necessary to know if our heart is sprinkled with Jesus’s blood.’
 (Auerbach 1784: back side endpaper)

There are also occurrences of *hab vor* that do not involve any expression of necessity or possibility, but instead describe a characteristic or habitual situation, as in (105):

- (105) *Maar op die (Passa) Feest die Gouvernera hab vor gie na*
 but on DET Passover feast DET governor PST haveCOMP give LOC
die Volk een Arestant loss, wat vor een sender a will
 DET people INDF detainee loose what for INDF 3PL PST VOL
 ‘But on Passover, it was the governor’s custom to release to the people a prisoner, whichever one they wanted.’
 (Böhner nd.b: 378)

Example (105) is a translation of the original German sentence in (106) that I have taken from Lieberkühn (1820), an unchanged reprint of the first print from 1769.

- (106) *Auf das Fest aber hatte der landpfleger die Gewohnheit, dem Volk einen Gefangenen los<zu>geben, welchen sie wollten.*
 on DET feast though have.PST.SG DET governor DET
 custom DET people INDF prisoner <COMP>release
 which 3PL want.PST.PL
 ‘On the feast, the governor had the custom of releasing to the people a prisoner, whichever one they wanted.’
 (Lieberkühn 1820: 247)

Below are some more examples. It is clear, also here, that there is no necessity or possibility reading whatsoever, but purely a characteristic one:

- (107) *En Jesus a reis weeraan na Jerusalem: En Em a vind nabinne die Tempel die Volk, die a hab vor verkoop Oss en Skap en Duvie sender,*
 and Jesus PST travel again LOC Jerusalem and 3SG
 PST find inside DET temple DET people REL PST
 have COMP sell ox and sheep and pigeon 3PL
 ‘And Jesus traveled to Jerusalem again. And he found/encountered inside the temple the people who sell oxen and sheep and pigeons.’
 ([Auerbach] nd: 30)
- (108) *namlik na Galilea, waar Herodes a hab vor regeer.*
 namely LOC Galilee where Herod PST have COMP rule
 ‘namely in Galilee, where Herod ruled.’
 (Böhner nd.b: 237)

There are two examples that I coded as indeterminate. In (109) it is not clear whether this characteristic reading is intended or whether *hab vor* is intended to express necessity.

In (110), it is not clear whether *ha voor* expresses a lack of need or refers to the lack of content of communication.

- (109) *Voor red, ook in\leining tot die Boeki. Lieve Gemeente-n, die*
 preface also introduction to DET book dear congregation-PL REL
ons hab vor bedien, door die Heere Si Gnade met die
 1PL have COMP serve through DET Lord 3S.POSS mercy with DET
Woord van Godt, tot jender Saligheid in eewig Leev, hier na
 word of God to 2PL salvation in eternal life here LOC
die Eyland-en St. Thomas, St. Croeix en St. Jean!
 DET island-PL St. Thomas St. Croix and St. John
 ‘Preface, or introduction to the book. Dear congregations that we
 (have to) serve, through the Lord’s mercy and the word of God, to
 your salvation in eternal life, here on the islands of St. Thomas, St.
 Croix, and St. John.’
 (Böhner nd.b: i)

- (110) *joe moe dien joe Man fraai, dat em no ha*
 2SG must serve 2SG man good that 3SG NEG have
voor klaag over joe
 COMPL complain over 2SG
 ‘You must serve your husband well, so that he has nothing to
 complain about you/ so that he doesn’t have to complain about you.’
 (Oldendorp nd.b, cited in Stein 2010: 257–258)

6.7.1.2. Dutch Creole *ha fo* in the nineteenth and twentieth century data

In the nineteenth and twentieth century Dutch Creole data, there are attestations of the *ha fo* construction as discussed in the previous section, too (see Table 6.16). We find *ha fo* expressing possession with a possibility reading, as in (111), and with a necessity reading, as in (112).

- (111) *So ons altit a kaa ha gut fo jet.*
 so 1PL always PST PRF/HAB have thing COMPL eat
 ‘So we always had things to eat.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 31)

- (112) *Də fulək sini wa ha də groot plantai sini,*
 DET people 3PL REL have DET big plantation 3PL
sini ha sabán fo klaar et fo di kui mi
 3PL have field COMP clear out for DET cow with
kabái fo kri gras fo sin jet.
 horse COMP get grass FO 3PL eat
 ‘The people who have the big plantations, they have fields to clear for
 the cows and horses to get grass for them to eat.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 31)

There are also cases of existential *ha fo*, again with either a possibility, as in (113), or a necessity reading, as in (114).

- (113) *Sini na ha eenteen gut werək fo du.*
 3PL NEG have any thing work COMP do
 ‘They don’t have any work to do.’
 (J.A. Testamark/X; de Josselin de Jong 1926: 31)

- (114) *Di kining a ha een pitfo dig.*
 DET king PST have INDF pit COMP dig
 ‘The king had a pit to dig.’
 (Roberts; de Josselin de Jong 1926: 55)

There are no occurrences where *ha fo* expresses possibility as a whole, nor are there any occurrences of *ha fo* referring to a characteristic situation.

Just as in the eighteenth century data, there are only few attestations of *ha* (OBJECT) *fo* VERB construction. But unlike in the eighteenth century data, *ha fo* expresses necessity as a whole in the big majority of occurrences.

Table 6.16: Meaning of *hab vor* in the eighteenth century Dutch Creole data

	Nec	Psbl	Exist			Possess	
			Nec	Psbl	Comm	Nec	Psbl
nineteenth century sources							
Pontoppidan	1	-	1	-	-	-	-
A. Magens	4	-	-	-	-	-	-
Total	5	-	1	-	-	-	-
twentieth century source: de Josselin de Jong (1926)							
Roberts	14	-	1	-	-	-	1
Prince	1	-	-	-	-	-	-
Francis	2	-	-	-	-	-	-
J.A. Testamark	2	-	-	-	-	-	-
J.A. Testamark/X	3	-	-	1	-	1	1
Joseph	2	-	-	-	-	-	-
Christian	4	-	-	-	-	-	1
Roberts	49	-	4	-	-	1	4
Total	77	-	5	1	-	2	7
Grand total	82	-	6	1	-	2	7

6.7.1.3. Dutch *hebben te* in seventeenth century data

Dutch uses a construction that is structurally similar to Dutch Creole *hab vor/ha fo*: *hebben te* ‘have to’. In this construction, as in (115), *hebben* ‘have’ ‘indicates sometimes possession, but in principal: be provided with

something (or someone) to make use of, benefit from, or have at his/her disposal'¹⁰⁶ and 'the object is specified by an infinitive with (*om*) *te* 'to', which indicates what purpose the object in question must or can etc. serve'¹⁰⁷, according to the scientific historical Dutch dictionary, the *Woordenboek der Nederlandse Taal* (WNT).

- (115) *Als sy niet en hadden om te betalen,*
 'When they did not have [the money] to pay'
 (Anonymous 1688:Luke 7:42, cited in WNT, lemma *hebben* I,I,B,7,b)

Originally, the object in the construction, e.g. *duizend gulden* 'thousand guilders' in (116), was the object to *hebben* 'have' with the *te*-infinitive indicating the purpose of the object. Eventually, the object was reinterpreted as depending on the *te*-infinitive (WNT, lemma *hebben*, I, I, C, 5, a).

- (116) *hij heeft duizend gulden te verteren.*
 'He has a thousand guilders to spend.'
 (WNT, lemma *hebben*, I, I, C, 5, a)

The WNT states the following scenario of semantic development of the construction in (116):

- i) he has thousand guilders to spend.
- ii) he has thousand guilders that he can spend.
- iii) he can spend thousand guilders.

For those cases with a necessity reading, as in (117), the scenario is as follows:

- i) he has something to report.
- ii) he has something that he must/has to report.
- iii) he must/has to report something.

- (117) *hij heeft iets te berichten*
 'He has something to report.'
 (WNT, lemma *hebben*, I, I, C, 5, a)

¹⁰⁶ "Door *hebben* wordt aangeduid, dikwijls ook wel tevens de eigendom, doch hoofdzakelijk: het voorzien zijn van iets (of iemand) om er gebruik van te kunnen maken, nut of profijt van te genieten, er over te kunnen beschikken." (WNT, lemma *hebben* I, I, B, 7, b)

¹⁰⁷ "Het object wordt bepaald door eene onbep. wijs met (*om*) *te*, welke aanwijst waartoe datgene wat voorhanden is dienen moet of kan enz." (WNT, lemma *hebben* I, I, B, 7, b)

Furthermore, there are cases where *hebben te* means ‘be (or feel) obliged, forced, compelled, or to have to [= Dutch *moeten*, which may also be in the sense of: *should* or *need*] perform an action, which is named by the infinitive’¹⁰⁸ (WNT, lemma *hebben*, I, I, C, 5, b):

- (118) *Keuren, Voorwelcke ‘t vollickheeft te buyghen met ghedult.*
 regulationsfor which the peoplehave COMP bend.INF with patience
 ‘Regulations for which the people have to yield with patience.’
 (Hooft 1613: 227, cited from WNT, lemma *hebben*, I, I, C, 5, b)

Although (118) shows that *hebben te* could be used already in 1613 to express necessity, whether there is a possibility or necessity reading appears to be above all only a contextual implicature. Given the right context, (116) may have a necessity reading and, conversely, (117) a possibility reading.

Recently, two databases have been published containing letters in Dutch from the seventeenth to the early nineteenth century written: *Gekaapte Brieven* ‘Privateered Letters’ (van der Sijs 2012) and *Brieven als Buit* ‘Letters as Loot’ (van der Wal 2013). These letters were written by people from all social classes, not just from the higher classes, and their language is closest to spoken Dutch from that time of all sources available.

The Letters as Loot database contains 77 occurrences of the *hebben te* construction from between 1661 and 1673. I have tried to code them according to their available readings given the context (see Table 6.17). In the first place, the codings indicate the available reading of the verb *hebben*:

- reading 1: *hebben* ‘have’ meaning ‘possess’, ‘dispose of’, or ‘have available’ (etc.)
- reading 2: *hebben* is more abstract and expresses availability to the subject on a more abstract level (e.g., the object is still to be realized, performed etc.) which may be considered as a sort of existential expression.
- reading 3: *hebben te* as a whole expresses necessity or possibility

Cases with readings 1 and 2 may have either a possibility or necessity reading.¹⁰⁹

¹⁰⁸ “*hebben te* — beteekent dan (overeenkomstig de jongere opvatting onder *a*) vermeld): verplicht, genoodzaakt, gedrongen, genoopt zijn (of zich gevoelen) tot die handeling —, die handeling moeten (óók in den zin van: behooren of behoeven) te verrichten, welke door den infinitief wordt genoemd.” (WNT, lemma *hebben* I, I, C, 5, b)

¹⁰⁹ The difficulty with such procedure is that one may read something in it, based on intuitions of contemporary Dutch, that was not intended by the writer. I try to get round this by coding the most literal and concrete reading available while assuming

Table 6.17: Use of *hebben te* in the Letters as Loot database (1661–1673)

	n	%
1: possessive	1	1
2: dispositional/existential		
content of communication	9	12
possibility	2	3
necessity	36	46
3: necessity	7	9
3: possibility	2	3
Other: characteristic	1	1
Fixed expression		
<i>te doen hebben</i>	16	21
<i>te gaan hebben</i>	1	1
Indeterminate	2	3
Total	77	100

There is only one occurrence in the Letters as Loot database where the original reading of *hebben* is available:

- (119) *al soo dat wij al hier seer sooper moeten leeu*
 thus that we here very austere must live.INF
want jck voere gheduerijch veel volck en hebbe
 because I feed continual much people and have
niet veel te schfen en hebbe nu niet meer
 not much COMP provide.INF and have now not more
als een tonne speck
 as INDF barrel bacon
 ‘It is for that reason that we have to live here very austere, because I
 am feeding many people and do not have much to provide and now I
 do not have more than one barrel of bacon.’
 (brievenalsbuit.inl.nl; To Jakemijntje Jacobs, 16 september 1672 by
 Klaas Deijnissen)

Most of the occurrences have been coded as ‘dispositional/existential’ with a necessity reading, as for example (120).

that each occurrence is ambiguous between the reading coded for and the reading one step more abstract. Table 6.17 should thus be read that each occurrence coded as ‘3: necessity’ does not have a dispositional/existential nor a possessive reading, whereas occurrences coded as ‘2: dispositional/existential’ with a necessity reading may in actuality have been intended to express the same meaning as have those occurrences coded as ‘3: necessity’.

- (120) *die seijde mij niet en conde helpen voor dat cornelis*
 3 say.PST me not NEG can.PST help.INF for that Cornelis
bastiaensen wegh was want hij veel hadde te schrijven
 Bastiaensen away be.PST because he much have.PST COMP write.INF
 ‘He said that he couldn’t help me because Cornelis Bastiaensen was
 away because he had a lot to write.’
 (brievenalsbuit.inl.nl; To Leintje Frans, 13 januari 1672 by Lieven de
 Wever)

Twenty-two of these (i.e., 61%) contained the verb *(be)danken* ‘thank’:

- (121) *beminde maen jck heb godt te daencken dat hij mij*
 beloved man I have God COMP thank.INF that he me
soo vaderlicken gesoont behoeden heft daer hijr soo veel
 so fatherly healthy guard.PP have there here so much
duisenden gestrven bent
 thousand-PL die.PP be
 ‘Beloved husband, I have God to thank that he has so fatherly kept me
 in good health, for so many thousands have died here.’
 (brievenalsbuit.inl.nl; To Hans Tijssen, 10 november 1664 by Trijntje
 Jacobs (2))

There are only two ‘dispositional/existential’ occurrences with a possibility reading:

- (122) *maer nu ben ijck redelijck gesont waer voor ijck*
 but now be I reasonable healthy where for I
godt niet genoeg heb te dancken
 God not enough have COMP thank.INF
 ‘But now I am in reasonably good health, for which I cannot thank
 God enough.’
 (brievenalsbuit.inl.nl; To Dirk Laurensz. Helt, 13 november 1664 by
 Margrietje Robbers)
- (123) *maer dat Ick vrij ware het soude beter wesen want dan*
 but that I free be.IRR=PST it IRR better be.INF because then
soude Ick wat meer wijnnen ende wat meer te seggen hebbe
 IRR I some more earn.INF and some more COMP say.INF have
 ‘But it would be better if I were free, because then I would earn some
 more and have a bit more to say (i.e., have more influence).’
 (brievenalsbuit.inl.nl; To Antony Jansen, 5 december 1664 by Adriaan
 Adriaansen)

There are nine occurrences of *hebben te* with verbs of communication that could be considered to express possibility, but they in fact express something much more specific, i.e., the content of what is to be communicated. In (124), the author expresses the non-existence of any other news worth mentioning rather than that he is not able to write anything special due to lack of news worth mentioning.

- (124) *ul brief vanden 25 december is mij wel behandicht ul*
 2.POL letter of=the 25 December be me M.ADV hand.PP 2.POL
ende ul broeders gesondtheijtdaer wt verstaende het welck
 and 2.POL brother.PL health there out understanding REL
mij lief was omtē hooren ul broeders
 me dear be.PST COMP=COMP hear.INF 2.POL brother.GEN
teweten anteunij's verbrugges vrouw is over 4 a
 COMP=know.INF Anteunis Verbrugge.GEN woman be over four or
5 dagen gelegen van een jonge sone voors hebbe ick nu
 five day.PL lie.PP of INDF youngson further have I now
niet bijsonders te schrijven
 not special COMP write.INF
 ‘Your letter of 25 December has been handed to me, understanding
 from it your and your brothers’ good health, which I was pleased to
 hear. Your brother’s, i.e., Anteunis Verbrugge’s wife gave birth to a
 young son four or five days ago. Further, I have nothing special to
 write now.’
 (brievenalsbuit.inl.nl; To Andries Verbrugge, 2 februari 1664 by
 Lambrecht Verbrugge)

There are seven occurrences of *hebben te* expressing necessity as a whole. Six of these express a lack of need:

- (125) *en icksal u altijt een onbeveijnst goet hert dragent*
 and I will 2 always INDF sincere good heart carrying
man sijn daer ul nooijt aen sult hebbe te twijffelen
 man be.INF there 2.POL never on will have COMP doubt.INF
 ‘And I will always be to you a husband carrying a sincerely good
 heart. You will never have to doubt that.’
 (brievenalsbuit.inl.nl; To Catelijntje Timmermans, 10 december 1664
 by Lucas Hagedoorn)

There are two occurrences of *hebben te* expressing possibility:

- (126) *Soo dat ulieden uwe gissing-e maken kondt tegen*
 so.that you.PL your guess-PL make.INF can.PST against
wat Tijt ghylieden mij (met de hulpe God-es) te
 what time you.PL me with the help God-GEN COMP
verwachten hebt.
 expect.INF have
 ‘So that you could make your guesses as to what time you can expect
 me (with God’s help).’
 (brievenalsbuit.inl.nl; To Erckelens, 12 december 1664 by Adam
 Erckelens)
- (127) *voors is hier niet sonders dan vreese niet dan*
 further be here not special than fear not than
oorloch thussen ons en engelant dat ons wel dapper
 war between us and England that us M.ADV strong
doet swaerhooffdich maecken soo dattet wel wesen
 do pessimistic make.INF so.that=it M.ADV be.INF
conde dat wij voor lest van Januarj niet van
 can.PST that we before last of January not of
hier gingen om dan acterom te gaen daer Jck
 here go.PST COMP then round.the.back COMP go.INF there I
niet veel lust toe hebbe alsoo wij niet dan
 not much liking to have because we not than
Tempeest-en daer te verwachten hebbe
 storm-PL there COMP expect.INF have
 ‘Further there is nothing special here but fear, nothing but war
 between us and England. That makes us very pessimistic, so that it
 may very well be that we will not leave before the end of January, to
 go round the back (i.e., sail round Scotland and Ireland instead of
 through the Channel). I don’t like that very much, because we can
 expect nothing but storms over there.’
 (brievenalsbuit.inl.nl; To Dirk Jansz, 13 december 1664 by Pieter
 Barendsz)

There is one occurrence of *hebben te* that refers to the subject being in the position to perform the situation introduced by *te*. Thus *hebben te* appears akin to Dutch Creole *hab vor* in those occurrences in the eighteenth century Dutch Creole data that express a characteristic event that I described as referring to as a job, task or function.

- (128) *ende oock dat gij u mooght dragen alst een*
 and also that 2.SBJ 2.OBJ may behave.INF as=it INDF
Christen betam Alle quaet der sonde-n mied-ende, om
 christian befit all evil DEF.GEN.PL sin-PL avoid-ing PREP
two reden-en Ten Eersten om dat godt de heere ons
 two reason-PL at first because God DET Lord us
gebiet het quade te laten: ende het goede Te
 order DET evil COMP abstain.INF and DET good COMP
doen ende het betaemt ons den heere onsen godt gehoorsaem
 do.INF and it befit us DET Lord our God obedient
Te wesen: gij bevindt wel hoe gij de gene Ten
 COMP be.INF 2.SBJ find M.ADV how 2.SBJ the.one at
dienste moet staen die over u hebben te
 service must stand.INF REL over 2.OBJ have COMP
gebieden: ende hoe nauwe gij haer moet gehoorsamen
 order.INF and how close 2.SBJ them must obey.INF
 ‘And [we wish] also that you may behave as is befitting for a
 Christian, avoiding all evil of the sins, for two reasons: First, because
 God the Lord orders us to abstain from evil: and to do what is good;
 and it befits us to be obedient to the Lord our God. You will find how
 to be of service to those who have [i.e., who are in the position] to
 order you, and how strictly you have to obey them.’
 (brievenalsbuit.inl.nl; To Aldert Jacobsz, 8 november 1672 by
 Cornelisje Jacobs)

Finally, there are a considerable number of lexicalized occurrences:

- (129) *maer wens-te wel te weeten waer dat ick haer*
 but wish-PST M.ADV COMP know.INF where that I their
vijnanschap ghedaen c hebbe ofte compt de vijnanschap
 enmity do.PP ? have or come DET enmity
door het bewaren van goet dat de vrynd-en
 through DET save.INF of goods REL DET friend-PL
melcanderen in hand-en laeten soo is beter met
 each.other in hand-PL leave so be better with
vrijmde te doen te hebben
 stranger.PL COMP do.INF COMP have.INF
 ‘but I would like to know where I did something hostile towards them
 or does the enmity come from saving goods that friends leave each
 other in hands? Thus it is better to have dealings with strangers.’
 (brievenalsbuit.inl.nl; To Jan Geraardsz, 25 november 1664 by
 Jeronimus van de Capelle)

In (129), *te doen hebben (met)* means ‘have dealings (with); have to do (with)’. There is also one lexicalized occurrence of *te gaan hebben* ‘have [an amount of time] left to go’:

- (130) *Den Doctoer Heeft mijn geseijt dat ick niet eer gesont*
 DET doctor have me say.PP that I not earlier healthy
zal worden voor eerst alsdat ick in de kraem gelegen
 will become for first as that I in DET childbed lie.PP
heb ick heb noch een paer maend-e te gaen
 have I have still INDF pair month-PL COMP go.INF
 ‘The doctor told me that I will not be better before I have given birth. I
 still have a couple of months to go.’
 (brievenalsbuit.inl.nl; To Jan Jans Calis, 9 april 1664 by Annetje Jans (1))

All in all, at least 47 out of the 77 (i.e., 61%) occurrences of the *hebben te* construction in the seventeenth century Dutch letters from the database Brieven als Buit is associated with a necessity or possibility interpretation (see Table 6.17). Of these 47, 43 (i.e., 91%) have a necessity interpretation and only four have a possibility interpretation. Thus, while the construction itself appears to be neutral with respect to whether it expresses possibility or necessity, *hebben te* more frequently occurs with a necessity interpretation.

However, it should be pointed out that *hebben te* is not to be considered practically equivalent to the Dutch modal *moeten* ‘must/have to’. Recall that there are only seven occurrences where *hebben te* expresses necessity as a whole, and six of these express a lack of need. Thus as a true marker of necessity, *hebben te* seems rather rare. By contrast, there are 549 occurrences of *moeten* in the same database of letters (see Table 6.18).

As a final comparison, only 1% of the letters contains one occurrence of necessitive *hebben te* each whereas 48% of the letters contain about 2 occurrences of *moeten* on average.

Table 6.18: Necessitive *hebben te* (narrow count) and *moeten* in letters from 1661–1673 in the Letters as Loot database (brievenalsbuit.int.nl)

	<i>hebben te</i>	<i>moeten</i>
N of occurrences	7	549
N of documents	7	258
Total n of documents	532	532
Occurs in % of total documents	1%	48%

When we include the 36 occurrences of existential *hebben te* with a necessity interpretation, the total number of necessitive *hebben te* is considerably more substantial. However, then it still only occurs in 8% of

the available letters with one occurrence each (see Table 6.19) – with the exception of one letter containing three cases of *hebben te bedanken* ‘have ... to thank’.

Table 6.19: Necessitive *hebben te* (broad count) and *moeten* in letters from 1661–1673 in the Letters as Loot database (brievenalsbuit.int.nl)

	<i>hebben te</i>	<i>moeten</i>
N of occurrences	43	549
N of documents	41	258
Total n of documents	532	532
Occurs in % of total documents	8%	48%

Moreover, the position of *hebben te* as a necessity modal does not appear to be any stronger in modern day Dutch.¹¹⁰ Out of all the seventeenth century Dutch examples discussed above, especially those where *hebben* retains some of its semantics (i.e., those with an existential or possessive interpretation, in particular examples such as *Ik heb niet veel te schrijven/zeggen/etc.* ‘I do not have much to write/say/etc.’) are still current in Dutch. This is not surprising given that in these examples *hebben te* cannot be substituted by a modal verb to express the same. But most importantly, it shows that – unlike English *have to* – Dutch *hebben te* has not developed into a basic modal expression that can compete with a modal verb such as *moeten*.

Thus, we find the same range of uses of Dutch Creole *hab vor* in the eighteenth century data as Dutch *hebben te* in seventeenth century data. But neither of them have the strong sense of necessity expressed by the construction as a whole.

6.7.1.4. English *have to*

Unlike Dutch *hebben te*, English *have to* has developed a strong sense of necessity. Just like Dutch *hebben te*, it originates from a construction in which *have* expresses possession and *to* introduces a purpose or goal adjunct (Heine 1993: 42; see Table 6.20).

Around 1600, contiguous examples of English *have to* as in stage IV were still rare, and most were still “*apokoinou*”, i.e., the modal reading and a more lexical reading are available simultaneously (Krug 2000: 74), as is the case for most examples in the Dutch letters from 1661–1673 from the Letters as Loot database discussed above in §6.7.1.3.

¹¹⁰ Due to limitations of time, I have not collected any figures from contemporary corpus data to back up this statement.

Table 6.20: The developmental stages of English *have to* (taken from Krug 2000: 55, table adapted from Heine 1993: 41f)

Stage		
I	I have a letter	[Possession schema]
II	I have a letter to mail	[Purpose schema: Possession schema + purpose/goal adjunct]
III	I have a letter to write	[the possessive meaning of <i>have</i> has been bleached out]
IV	I have to write a letter	[<i>have to</i> now functions as a unit lexeme expressing the modal notion of obligation]
V	I have to write	[the object complement can now be deleted]

Corpus data show a gradual increase of the contiguous use of English *have to* starting only from around 1800 (Krug 2000: 74). This suggests that English *have to* was much more strongly an expression of necessity at the end of the eighteenth century than was Dutch *hebben te* at any point in time. Thus, it is not impossible that the use of Dutch Creole *ha fo* as an expression of necessity was affected in one way or another by English *have to*.

6.7.1.5. The expression of necessity-related concepts in Akan and Ewe

By any chance, does the Dutch Creole *ha fo* construction as an expression of necessity and obligation have any roots in how necessity and obligation are expressed in Akan and Ewe? The ways of expressing necessity-related concepts in Akan are more diverse than the possibility-related ones, so it has this general feature in common with Dutch Creole. Akan uses the construction expletive pronoun *ε*- + verb + interpretive complementizer *sε* (Owusu 2014: 94). There is only a limited number of verbs that can be inserted in this construction to express necessity: *sε* ‘to befit’, *wɔ* ‘to be located at/to have’, and *hiã* ‘to need’ (Owusu 2014: 96).

Of these three, *ε-sε sε* ‘it is fitting that’ and *ε-wɔ sε* ‘it is (located) that/ it has that’ can be used to express dynamic necessity:

(131) participant-inherent dynamic need

Me-pe sε me-ka kyrεε wo paa, nanso
 1SG-like COMP 1SG-tell show 2SG DEG.ADV CONJ
nsukɔm de me paa. ε-sε sε/
 water.hunger hold 1SG.OBJ DEG.ADV 3SG.INAN-befit COMP
ε-wɔ sε me-nom nsuo ansa.
 3SG.INAN-be.at COMP 1SG-drink water before
 ‘I really want to tell you, but I am so thirsty. I need to drink something first.’
 (Solace Yankson, p.c., 11 March 2015; speaks Akyem, writes
 Akuapem, sentence elicited)

- (132) *M-ε kã a-kyere wɔ nanso nsukɔm de*
 1SG-FUT tell CONS-show 2SG but water.hunger hold
me dodo. ε-wɔ sɛ me num nsuo ansa.
 1SG much 3SG.INAN-be.at COMP 1SG drink water before
 ‘I will tell you, but I am very thirsty. I need to drink something first.’
 (Augustina Owusu, p.c., 12 March 2015; Asante, sentence elicited)
- (133) participant-external dynamic necessity
Bregye no a-bu a-gum, nti ε-sɛ
 bridge DEF PRF-break PERF-fall.inside, CONJ 3SG.INAN-befit
sɛ me-fa kodoɔ no ara de twa nsuo no.
 COMP 1SG-take boat DEF EMPH take cut water DEF
 ‘The bridge has collapsed, so I have to take the boat to cross the river.’
 (Solace Yankson, p.c., 11 March 2015; Akuapem/Akyem, sentence elicited)
- (134) *Bridge no a-sei, ε-wɔ sɛ/ ε-sɛ*
 bridge DEF PRF-spoil 3SG.INAN-be.at COMP 3SG.INAN-befit
sɛ me-de boat na twa nsuo no.
 COMP 1SG-hold boat COMP cut water DEF
 ‘The bridge has collapsed, so I have to take the boat to cross the water.’
 (Augustina Owusu, p.c., 12 March 2015; Asante, sentence elicited)
- Owusu (2014: 95–100) discusses the semantic differences between *ε-sɛ sɛ* and *ε-wɔ sɛ*, where she likens *ε-sɛ sɛ* to English *must* and *ε-wɔ sɛ* to English *should* or *ought to*. The differences seem in correspondence with Bybee et al.’s (1994) distinction between weak and strong necessity (termed ‘obligation’ there). They describe the difference as follows: “If a weak obligation is not fulfilled, the consequences are not too serious; but the consequences of not fulfilling a strong obligation are much more severe. [...] English distinguishes strong obligation, expressed with *must* and *have to*, and weak obligation, expressed with *should*” (Bybee et al. 1994: 186).
- Owusu states that in using *ε-wɔ sɛ*, as in (135), the speaker “communicates what is reasonable to expect based on a set of laws (natural moral laws or laws in a particular jurisdiction) that are available” (2014: 99–100).
- (135) *ε-wɔ sɛ Ministersno yɛ ready to sacrificenneema bi*
 3SG.INAN-be.at COMP ministers DET COP ready to sacrifice things some
 ‘The ministers should/ought to be ready to sacrifice certain things.’
 (Owusu 2014: 98)

She further specifies that “the proposition [in (135)] states that it would be good if they do it, or they are supposed to make those sacrifices but no one can force them to do it since they are not necessarily obligated to do so” (2014: 100).

This is different from when ε - $s\varepsilon$ $s\varepsilon$ would be used, in which case the interpretation would be ‘Ministers are being mandated to sacrifice some benefits’ (2014: 100). Furthermore, Owusu illustrates that when using ε - $s\varepsilon$ $s\varepsilon$, “the speaker seeks to intervene in the speech act (get the addressee to perform an action)” (2014: 97), as in (136), which is “from a pastor admonishing his members to worship God” (2014: 97).

- (136) ε - $s\varepsilon$ $s\varepsilon$ *kristoni deɛ wo-yɛ hye.*
 3SG.INAN-befit COMP christian TOP 2SG-COP hot
 ‘As a Christian you must be on fire.’
 (Owusu 2014: 96)

Owusu’s review of these two necessity constructions in Akan shows that in these particular examples ε - $s\varepsilon$ $s\varepsilon$ in (136) is a directive, whereas ε - $wɔ$ $s\varepsilon$ in (135) is deontic. But in the absence of further information, I will provisionally assume that both can be used as a directive and/or a deontic attitudinal, given that the distinction *weak* versus *strong necessity* does not truly equal *directive* versus *deontic*.

The construction ε - $hiā$ $s\varepsilon$, which can mean ‘it is necessary that’ or ‘it is important that’ appears to be primarily deontic. It expresses *deontic desirability* in (137), as follows from Owusu’s remark on the example: “The addressees in the context of [(137)] are supposed to interpret the proposition *yɛhwɛ yɛn abɔdamfoɔ yie* (i.e. taking good care of the mentally challenged[]) as necessary and desirable to the speaker” (2014: 102).

- (137) ε - ho $hiā$ $s\varepsilon$ *yɛ- hwɛ yɛn a-bɔdamfoɔ yie*
 3SG.INAN-body need COMP 3PL-look 3PL.POSS PL-mad.people well
 ‘It is necessary that we take care of our mental patients well.’
 (Owusu 2014: 101–102)

Epistemic necessity is expressed by either ε - $s\varepsilon$ $s\varepsilon$ or ε - $wɔ$ $s\varepsilon$:

- (138) *Safoa no deɛ ε-sε sε ε-da pono wei so.*
 key DEF TOP 3SG.INAN-befit COMP 3SG-sleep table DET on
 ‘As for the key, it should be on this table.’
 (Owusu 2014: 96)

- (139) *Abɔ nine, ε-wɔ sɛ ɔ-wɔ hɔ.*
 it.is nine o'clock, 3SG.INAN-be.atCOMP 3SG-be.atthere
 'It is nine o'clock, s/he should be there.'
 (Owusu 2014: 99)

In Ewe, the situation is very similar to the one in Akan. Ewe also makes use of a construction expletive-pronoun + verb + complementizer *bé* + finite complement clause. The three verbs to be inserted are *le* 'be located', *dze* 'be fitting', and *hĩá* 'need'. Thus, in terms of the verbs used the resulting constructions in Ewe are the exact equivalents of the Akan constructions.

Of these three constructions, Ewe *é-le bé* is most common (Essegbey, van den Berg & van der Vate 2013: 78). It can be used to express dynamic necessity:

- (140) *Bridge-ε gblé eyata é-le bé*
 bridge-DEF spoil therefore 3SG.IMPERS-be.at:PRES COMP
má-tso tɔ-ɔ kplé ferry.
 1SG:SBJV-cut river-DEF COM ferry
 'The bridge has broke down so I have to cross the river with the ferry.'
 (Felix Ameka, p.c., 16 March 2015, sentence elicited)

It can also be used to express weak obligation (which could be either deontic or directive depending on the context):

- (141) *É-le bé na-dzra ga dɔ*
 3SG.IMPERS-be.at:PRES COMP 2SG:SBJV-hide money arrive
 'You should save money.'
 (Essegbey, van den Berg & van der Vate 2013: 78)

There seems to be no structural correspondence between Dutch Creole *ha fo* and Ewe *é-le bé*, *é-dze bé*, and *é-hĩá bé*. Of the three Akan constructions discussed, only *ε-sɛ sɛ* and *ε-wɔ sɛ* cover a wider range of necessity-related concepts, as *moeten* does in Dutch. Of these two, one involves a verb that is translatable as 'be located' or 'have' as a full verb (*wɔ*) that combines with a complementizer (*sɛ*) after which the verb in the scope of the necessity or obligation occurs. So far, this might resemble the Dutch Creole *ha fo* construction, but any possible resemblance ends beyond this point. In the necessity construction, Akan *wɔ* 'be located/have' is an impersonal verb, unlike Dutch Creole *ha fo*, and the complementizer *sɛ* introduces a finite clause with a subject, whereas *fo* in Dutch Creole *ha fo* introduces only a VP without a subject. All in all, structurally Dutch Creole *ha fo* does not seem to correspond to Akan *ε-wɔ sɛ*.

6.7.2. Development of Dutch Creole *fo* as an expression of necessity and obligation

Previous analyses of Dutch Creole *fo* unanimously assume that *fo* is a variant of *ha fo* in which *ha* has been omitted (Graves 1977: 153–154; Van Diggelen 1978: 87; Stolz 1986: 193; De Kleine 2007: 261). There is also unanimity in the fact that *fo* is not preceded by TMA markers, unlike *ha fo* (Graves 1977: 153–154; Stolz 1986: 193; De Kleine 2007: 261). Thus, we find *fo* in contexts where it has present time reference, as in (142), and in contexts where it has past time reference, as in (143) and (144). Note that in both (143) and (144) all other verbs are marked for past time reference (with past marker *(h)a*) except *fo*.

(142) Present time reference

Ju fo du di obu shi koop.
 2SG FO do 3.INAN over 3S.POSS head
 ‘You should put it over his head.’
 (Joshua; de Josselin de Jong 1926: 13)

(143) Past time reference

Weni am a draai, dā kining ha maa een frokós.
 when 3SG PST turn DET king PST make INDF feast
Eekē jungman fo bring sōnggut.
 each youngman FO bring something
 ‘When he came back, the king (had) organised a feast. Every youngman had to bring something.’
 (Joshua; de Josselin de Jong 1926: 12)

(144) *So am a see shi maa, am fo ko nee wa*
 so 3SG PST say 3S.POSS mother 3SG FO come take what
stibu am a ha. So di maa fo gi am wa
 money 3SG PST have so DET mother FO give 3SG what
stibu di maa a ha. So di maa a du so.
 money DET mother PST have so DET mother PST do so
 ‘So he told his mother that she had to come and take whatever money he had. So his mother had to give him whatever money his mother had. And so his mother did.’
 (Roberts; de Josselin de Jong 1926: 45)

By contrast, *ha fo* frequently occurs with past marker *(h)a* (as in 145) and irrealis/future marker *sa* (in 146).

- (145) *Dan am a ha fo sak nee werán.*
 then 3SG PST have FO lower down again
 ‘Then he had to descend again.’
 (Roberts; de Josselin de Jong 1926: 53)

- (146) *Senə sa haa fo wel am.*
 3PL IRR have FO like 3SG
 ‘They would have to like him.’
 (Joshua; de Josselin de Jong 1926: 11)

Stolz (1986: 193) sees this fact as compelling evidence that modal *fo* cannot be treated in isolation”, since in that case “*ha fo* would necessarily have to be interpreted as a past tense form”. He rightly observes that – given the evidence in (145) and (146) – such analysis would be absurd. I wonder however whether it follows so logically from the fact that *fo* is not tense marked that modal *fo* can only be *ha fo* with verbal *ha* deleted.

As van Diggelen (1978: 87) remarks, the idea that modal *fo* is *ha fo* with *ha* deleted is akin to Washabaugh’s (1975: 130–134) account of modal *fi* in Providencia Island Creole (PIC) and its equivalents in other Caribbean English Creoles, which he claims to be a complementizer governed by an unexpressed verb of obligation. However, PIC modal *fi* can be tense marked, as shown in (147), of which Washabaugh remarks: “The problem is not so much to explain why a past tense marker should stand before FI – there is nothing so unusual about tense being marked on an unexpressed verb” (1978: 256).

- (147) *Ai me fi aks dem if dem neva gi im no*
 I PST MOD ask 3PL if 3PL never give 3SG no
nurishment.
 nourishment
 ‘I should have asked them if they ever gave him any nourishment.’
 (Washabaugh 1978: 256)

Stolz claims that the development of modal *fo* “is with certainty a recent development” (1986: 193). The first attestations of modal *fo* are from A. Magens’s letter to Hugo Schuchardt written in 1883:

- (148) *As slang bit ju, ju fo bang kakkatess.*
 if snake bite 2SG 2SG FO fear lizard
 ‘If snake bites you, you should fear lizard.’
 (Magens 1883, cited in Schuchardt 1914: 133)

Thus, according to this scenario at some point before the latter half of the nineteenth century Dutch Creole speakers would occasionally omit *ha* in the modal construction *ha fo*, which can be marked for tense, and thereby create a new variant *fo* with the same semantic and functional potential. There is only one reason to assume that this reduced variant *fo* would not be tense-marked, i.e., the use of the past marker *a* would lead to confusion with the verb *ha* where past tense modal **a fo* and unmarked modal *ha fo* would sound too much the same (given that past tense marker *a* occasionally occurs as *ha*). Formulated this way, this is a likely scenario for the development of modal *fo*. From a functional perspective, however, I see no need to postulate the underlying presence of another modal verb, as Washabaugh (1975) does. If *fo* is reanalyzed as a modal, it can express all meanings by itself.

In §6.4.1.5.2, I found that only *fo* is negated, not *ha fo* (in Roberts's data). This might be an indication that *ha fo* was reduced to *fo* in negated contexts. In such scenario the verbal part *ha* would blend with the negator *na/no* and other variants. Table 6.21 shows that *na* is the most common form of the negator for every informant, with the exception of Roberts and A.C. Testamark. However, in Table 6.4 in §6.4.1.5.2, I also showed that the only occurrences of negated *fo* are found in Roberts's data, and that *fo* only co-occurs with *no* and *nu*. This is logical given that Roberts is the only informant who produced relatively few occurrences of *na* but many of *no* and *nu* (see Table 6.21).

Table 6.21: The expression of verb negation in de Josselin de Jong (1926)

Speaker	<i>na</i> ^a	<i>no</i>	<i>nu</i>	<i>nə</i>	<i>ne</i>	<i>ni</i>	Total
Joshua	56	13	4	26	2	1	102
Prince	-	1	2	-	-	-	3
Francis	2	-	-	-	-	-	2
J.A. Testamark	9	3	2	1	-	-	15
J.A. Testamark/X	17	8	-	-	1	-	26
George	2	-	-	-	-	-	2
A.C. Testamark	1	3	-	-	-	-	4
Joseph	11	3	-	-	-	-	14
Christian	11	3	-	-	1	2	17
Roberts	29	87	88	6	-	-	210
Joshua/J.C. Testamark/Roberts	-	1	-	-	-	-	1
Total	138	122	96	33	4	3	396

a = There are three occurrences of *naa*, two by Joshua and one by Roberts. I have merged these in the table with *na*.

A complication for this scenario is the fact that TMA markers precede the verb and follow the negator:

- (149) *ho ju kan see: mi na ha hopo di do*
 how 2SG can say 1SG NEG PST open DET door
 ‘How can you say: “I didn’t open the door.”’
 (Joseph; de Josselin de Jong 1926: 33)

But if we assume to be meaningful the finding that Roberts does not negate *ha fo* but does negate *fo*, it makes sense to look further. One possible way out of the complication would be to assume that the verbal part of *ha fo* merged with *na/no* in non-past contexts. In fact, most occurrences of negated *fo* are in non-past contexts or in future-in-the-past contexts, as in (150), where we could expect the past marker to be omitted.¹¹¹

- (150) *Weni di jung man a draag am a hus wapi*
 when DET young man PST carry 3SG LOC house where
shi maa mi shi taa a wes, am a
 3S.POSS mother with 3S.POSS father PST be 3SG PST
see am, jaa, am nu fo lista shi maa nit
 say 3SG yes 3SG NEG FO let 3S.POSS mother not
een fulok fo kis am
 one people COMP kiss 3SG
 ‘When the young man carried her home where her mother and father
 were, she said to him that yes, he musn’t let his mother nor anyone
 else kiss him.’
 (Roberts; de Josselin de Jong 1926: 41)

Still, it seems rather unlikely that *ha* in *ha fo* would definitely merge with negator *na/no* (in the sense that co-occurrence of *na/no* and *ha fo* would no longer occur)¹¹², but not with the phonologically similar or even identical and always immediately preceding past marker *(h)a* (given that there are ample occurrences of negated *ha fo* in the data). Thus, a more probable conclusion would be to assume that – under the assumption that *ha fo* did reduce to *fo* – this did not happen in a single context, such as following the negator. And probably also not categorically with the past marker. Rather, it seems probable that a redistribution of combinability with the past marker

¹¹¹ Recall from §3.3.3 that there is no indication that occurrences of *no* and *nu* – unlike *na* – are a merger of the negator and the past marker. Rather, the past marker seems to be simply absent.

¹¹² With the proviso of course that lack of occurrence in a database as de Josselin de Jong (1926) is no definite proof that these speakers would reject negation of *ha fo*, nor even does it prove that these speakers would not have used it. We might only infer that if these speakers used negated *ha fo*, it is likely that they did so less frequently than that they used negated *fo*.

(*ha fo*) and the negator (*fo*) – which may also just be a tendency – took place when speakers became aware of the change.

We would not need to look any further, if it was not for the fact that we encounter the same pattern (an equivalent to *fo* that is homophonous/-morphous to a complementizer) in so many Atlantic creoles (see Table 6.22).

Table 6.22: Overview of Caribbean creoles with a necessity modal also functioning as a complementizer

Language	Form	Source
Dutch-lexifier		
Berbice Dutch	<i>fu</i>	Kouwenberg (2007: 34)
Virgin Islands Dutch Creole	<i>fo</i>	Van Diggelen (1978); Stolz (1986); De Kleine (2007: 261)
French-lexifier		
Dominican/Kwéyòl	<i>pou</i>	Chapuis (2007: 89)
Guyanais	<i>pou</i> + CL	Pfänder (2013: 224)
Haitian Creole	<i>pu</i>	Koopman & Lefebvre (1982: 71ff)
Portuguese-lexifier^a		
Guinea-Bissau Kriyol	<i>i(COP) pa</i>	Baptista et al. (2007: 63)
Portuguese Creole of Senegal	<i>ta pa</i>	(Muysken p.c., cited in Washabaugh 1978: 254)
English-lexifier		
Ghanaian Pidgin English	<i>fɔ̀</i>	Huber (2013: 171)
Gullah	<i>fə</i>	Mufwene & Dijkhoff (1987: 317ff)
Guyanese Creole	<i>fu</i>	Winford (1993b: 93, 98)
Krio	<i>fɔ</i>	Finney (2013: 161)
Jamaican Creole	<i>fɪ</i>	Winford (1993b: 93, 98)
Nicaraguan Creole English	<i>fo/fa</i>	Bartens (2013b: 120–121)
Nigerian Pidgin	<i>fɔ̀</i>	Faraclas (2013: 181)
Pichi	<i>fɔ̀</i>	Yakpo (2013: 199)
Providence Island Creole	<i>fɪ</i>	Washabaugh (1975); Bickerton (1980); both cited in Byrne (1987: 112)
Saramaccan	<i>fu</i>	Aboh (2006: 17); Lefebvre & Loranger (2006)
San Andres Creole English	<i>fɪ</i>	Bartens (2013a: 108–109)
Vincentian Creole	<i>fo</i>	Prescod (2013: 75)

a = The constructions *i pa* and *ta pa* in the two Portuguese-lexifier creoles listed differ from the other constructions in that they involve a copular element, whereas the other forms are modal expressions by themselves.

There has been much discussion and controversy on the origin of this modal *fi/fu/fo/pu/pou*. Byrne (1984) and McWhorter (2005: 211–215) refute Edwards's (1974) suggestion that Caribbean English Creole (CEC) *fi* derives from an Akan verb *fi* 'come from'. It is of course even less convincing to suggest Akan *fi* as the origin for the modal *fu/fo/pu/pou* in non-English-lexifier Atlantic creoles, since they do not have – and never had – the form *fi*.

McWhorter (2005: 199–224) argues that all Atlantic English-lexifier creoles (AECs) have a common ancestor. He proposes that AEC modal *fu* derived from an earlier dialectal English *to be for* construction denoting "futurity and, by extension, intention", from which the step to expressing obligation is "not implausibly" big (McWhorter 2005: 216). This development must have taken place in a common ancestor to all AECs during "an earlier stage in the grammar in which the copula was unexpressed across the board" (McWhorter 2005: 216). His main argument is that we would expect variation, which we do not find, across the various AECs if modal *fu* had developed out of futurity *be for* in each or most AECs independently: in some of them, we would for example expect that *fu* still expresses futurity (McWhorter 2005: 216).

However, if we take the possibility into consideration that English *be to* expressing 'duty, obligation, or necessity' (OED, lemma *to*, B, 11b), as in (151), was at the origin of AEC *fu* rather than *be for*, then there is no need to postulate a further semantic change before we arrive at the sense of obligation and necessity.

(151) You **are not to** go abroad.

(Shakespeare 1602: 112, cited in OED, lemma *to*, B, 11b, a)

See in this respect the two occurrences of Dutch Creole *bin fo* 'be to' and the discussion in §6.7.4.

Bakker (1987: 27) states with respect to the existence of modal *fo* in so many creole languages that "some knowledge of nautical pidgins almost certainly played a role in the formation of creole languages". His scenario assumes – just like McWhorter's for AEC *fu* – that modal *fo* developed in the formative period of the creole.

Thus, even though it may very well be that Dutch Creole *fo* is the result of occasional omission of verbal *ha* in Dutch Creole *ha fo*, the scenarios of modal *fu* and its equivalents in other Atlantic creoles and their implications for Dutch Creole *fo* should not be neglected. It is, for example, far from implausible that Dutch Creole *fo* developed as a modal early in the existence of Dutch Creole but that this was not picked up by the colonists nor the

missionaries, as we know was the case for other features of twentieth century ADC, such as the serial verb (like) constructions.

Finally, Dutch Creole *fo* does not seem to stem from VI English Creole (VIEC) or a nearby spoken English Creole *fu/fo*. Rather, VIEC uses *have to* and *got to*, and for situations with past time reference *had to* is used (Gilbert Sprauve p.c., 18 September 2013).¹¹³ Thus, it is possible that the use of Dutch Creole *ha fo* as a necessity modal is the result of contact influence from VIEC, but this scenario is not available for Dutch Creole *fo*.

6.7.3. *Bin fo*: Dutch, Danish, or English influence?

In §6.6 (Table 12), we have already seen the use of *no bin voor* as an expression of lack of need by the Danish Lutheran missionary Lund (the example (87) in question is reprinted below as (152)) and the occurrence of *bin fo* as an expression of dynamic necessity in de Josselin de Jong (1926) (example repeated below as (160)).

- (152) *Die sender, die regeer, no bin vor bang, wanneer*
 3 3PL REL rule NEG COP COMP afraid when
ons doe wagoet bin vraj, maar wanneer ons doe Qwaat.
 1PL do what COP good but when 1PL do evil
Daarom as joe wil wees noe sonder Vrees voor
 therefore when 2SG VOL COP now without fear for
die Owrighejt, joe doe daan, wagoet bin vraj,
 DET government 2SG do then what COP good
 ‘Those who rule do not need to be feared, when we do good, but when
 we do evil things. Therefore, when you want to be without fear for the
 government, you do what is good.’
 (Lund 1798: 105)

However, there are four occurrences in Lund (1798) with a possibility interpretation, such as (153) and (154).

¹¹³ Gilbert Sprauve (p.c., 18 September 2013) shared with me the observation that other Caribbean English Creoles around the US VI use *Mi a ha fo* ‘I had to’ to refer to past situations, which is in fact identical to a Dutch Creole equivalent. This construction is also used by VIEC speakers ‘born and bred’ on the northside of St. Croix, while “[n]ormally, you would not hear such a form from St. Thomians or St. Johnians of whatever age.” This is remarkable, since Dutch Creole is reported to have gone out of use first on St. Croix and to have survived longest on St. John.

- (153) *Die bin gewis, dat die Wil van Godt, die angaan ons Mens-en, bin
 3 COP certain that DET will of God REL concern 1PL people-PL COP
 vor lees nabinne die Bibel, die ons roepdaarom die Woort van
 COMP read inside DET Bible REL 1PL call therefore DET word of
 Godt, voordiemaak die Bibel leer ons heel klar, wagoet een sondig
 God because DET Bible teach 1PL very clear what INDF sinful
 Mens mankeer vor weet na sie Verbeeter en Troost
 human need COMP know LOC 3S.POSS improvement and solace
 en waar Glyksalighejt
 and true bliss*
 ‘It is certain that God’s will, which concerns us people, can be read in
 the Bible, which we call the word of God for this reason, because the
 Bible teaches us very clearly what a sinful human being needs to
 know to his improvement and solace and true bliss’
 (Lund 1798: 4)

- (154) *Godt bin een Geest of: een onsigbar Weesen, die
 God COP INDF spirit or INDF invisible being REL
 hab Verstant en vrie wil, maar no hab geen
 have power.of.reason and free will but NEG have no
 Likam, en no bestaan van Part-en. Daarom hem no
 body and NEG exist of part-PL therefore 3SG NEG
 bin vor kik mit likamlik Hogo, en ons no kan
 COP COMP see with bodily eye and 1PL NEG can
 stel ons Godt voor onder eenigste Beelt.
 imagine 1PL God PRT under any image*
 ‘God is a spirit or an invisible creature, who has reason and free will,
 but who doesn’t have a body and does not consist of parts. Therefore,
 He cannot be seen with the bodily eye, and we cannot picture God
 through any image.’
 (Lund 1798: 8)

Danish, missionary Lund’s L1, also has this use of the verb *be* plus infinitive with a possibility interpretation, as the following current day examples show:

- (155) *Udstilling-en er at se fra lørdag den 5.
 exposition-DET COP COMP see from Saturday DET fifth
 september 2015 – søndag den 10. januar 2016.
 September 2015 Sunday DET tenth January 2016*
 ‘The exposition can be seen from Saturday the fifth of September
 2015 to Sunday the 10th of January 2016.’
 (www.horsenskunstmuseum.dk/sw208.asp; accessed on 01 May 2015)

- (156) *SMAG! er at finde i kendte magasin-er.*
 SMAG! COP COMP find in known department.store-PL
 ‘SMAG! can be found in well-known department stores.’
 (<http://www.smagenergy.com/#!/home/zoom/mainPage/image1yh1>;
 accessed on 17 August 2015)

Thus, it is possible (and even likely) that the use of *bin vor* in Lund (1798) is inspired by the possibilities of the equivalent construction in his native Danish. Dutch and German also make use of this construction, also referred to in the literature as the “modal infinitive”. The German construction allows – without disambiguating context – a possibility and a necessity reading (Holl 2001: 218), as exemplified in (157).

- (157) *Diese Aufgabe ist zu lösen.*
 this assignment is COMP solve.INF
 ‘This assignment can/must be solved.’
 (Holl 2001: 217)

Boogaart (2006: 44–46) discusses the use of Dutch *te ... zijn* ‘(lit.) be to’ and its possible interpretations. He concludes that in terms of frequency and productiveness, there is no doubt that the *te ... zijn* construction can be used to express possibility (Boogaart 2006: 45):

- (158) *De medische faculteit is niet te missen: die hangt ongeveer over het station heen.*
 DET medical faculty is not COMP miss.INF 3 hang
 approximately over DET station LOC
 ‘The medical faculty cannot be missed: it is located more or less above the station.’
 (www.delta.tudelft.nl/archief/j32/n20/4647, cited in Boogaart 2006: 38)

In Dutch of the Netherlands, however, *te ... zijn* with a necessity interpretation is not productive, unlike the situation in German (Boogaart 2006: 47). Interestingly, in Belgian Dutch there are examples of *te ... zijn* with a necessity interpretation:

- (159) a. *Goed om te weten: een proefles is te betalen.*
 good COMP COMP know.INF INDF trial.lesson is COMP pay.INF
 ‘Good to know: a trial lesson must be paid for.’
 (www.tapshowcompany.com, cited from Boogaart 2006: 38)

- b. *Alleen het ontbijt is te betalen.*
 only DET breakfast is COMP pay.INF
 ‘Only breakfast needs to be paid for.’
 (www.travelprice.be, cited in Boogaart 2006: 38)

Let us turn now to the example of *bin fo* in de Josselin de Jong (1926), repeated below as (160), where *bin fo* has a necessity reading. However, more importantly, the subject of *bin fo* is also the participant who is affected by the necessity. This is unlike Danish *være at*, German *zu ... sein*, and Dutch *te ... zijn*, which are inherently passive: the subject of the BE-verb is the object of the verb after the complementizer which has the possibility or necessity interpretation. As a result, the subject is never the participant affected by the necessity or possibility in these languages. Thus, the use of *bin fo* in (160) is not a continuation of a Dutch-derived (or Danish or German) construction.

- (160) *As ju bin fo lak, ju lak eenmaal;*
 if 2SG COP COMP laugh 2SG laugh once
as ju bin fo speel, ju speel eenmaal!
 if 2SG COP COMP play 2SG play once
 ‘If you have to laugh, you laugh once; if you have to play, you play once!’
 (Roberts; de Josselin de Jong 1926: 64)

However, English makes use of a construction *be to* – which, consisting of a (locative) copula and a purposive complementizer is structurally exactly parallel to Dutch Creole *bin fo* – that expresses obligation and prohibition (in combination with negation), as in (161), where the subject is the addressee of the directive, just like in the Dutch Creole example above.

- (161) You **are to** leave immediately.

Thus, we should consider that the use of *bin fo* in (160) may be the result of imposition from English as the dominant language of the de Josselin de Jong’s participants.

6.7.4. The volitional items *mankeer* and *wel/wil*

Unlike the case of the necessity modals, the two volitional items in the nineteenth/twentieth century data are also documented in the eighteenth century data. For both items, the twentieth century ADC data and the eighteenth century EDC data (represented by Magens 1770) concur. Starting

with *mankeer/mangkée*, the ADC and the EDC data both document the item as an expression of volition (see (162) and (163) respectively).

- (162) *Dzhak a bli bini di saku. Am a kreew it see,*
 Jack PST stay inside DET bag 3SG PST shout out say
am nu mangkéé fo lo hééwun.
 3SG NEG want COMP go heaven
 ‘Jack was left inside the bag. He yelled, said that he didn’t want to go to heaven.’
 (Roberts; de Josselin de Jong 1926: 45)

- (163) X: *Wat die hab for Vrukost?*
 what 3 have for breakfast
 ‘What’s for breakfast?’
 Y: *Die hab Sussies en Ejerstryf.*
 3 have sausage and omelette
 ‘There are sausages and omelette.’
 X: *Die no hab van die kou Ham?*
 3 NEG have of DET cold ham
 ‘Isn’t there any cold ham?’
 Y: *Die hab beetje.*
 3 have a.bit
 ‘There is some.’
 X: *Mie no mankeer Sikryto.*
 1SG NEG want left.over
 ‘I don’t want leftovers.’
 X: *Wa die kou sout Vleis?*
 where DET cold salt meat
 ‘Where is the cold salted meat?’
 Y: *Die ka kabae.*
 3 PRF finish
 ‘That’s finished.’
 (Magens 1770: 56, cited in Hesseling 1905: 147)

In the ADC data, the volitional sense is predominant, but there are also occurrences of twentieth century *mangkée* in the sense of ‘need’ with three different speakers (see (164) and (165) and Table 6.23):

- (164) *Am sa kri me jit as am mangkéé.*
 3SG IRR get more food as 3SG want
 ‘She would get more food than she needs.’
 (Joshua; de Josselin de Jong 1926: 22)

- (165) *Am a loo skreew a di meeⁿshi butshi, am*
 3SG PST IPFV shout LOC DET girl brother 3SG
ha fo neem am fan də slang. Mi butshi, ju hoo
 have FO take 3SG of DET snake 1SG brother 2SG hear
ju shishi loo rup ju! Pobu mi, pobu mi, butshi,
 2SG sister IPFV call 2SG poor 1SG poor 1SG brother
ju shishi mangkéé ju!
 2SG sister want 2SG
 ‘She was yelling to the girl’s [i.e., her own] brother that he had to take
 her from the snake. “My brother, do you hear your sister calling you?
 Poor me, poor me, brother, your sister needs you!”’
 (Joseph; de Josselin de Jong 1926: 33)

Table 6.23: Meaning of *mankeer* in the nineteenth and twentieth century data

	With complement verb		Without complement verb		
	volition	indet.	‘want’	‘need’	indet.
A. Magens	1	-	-	-	1
Pontoppidan	1	-	-	-	-
Total	2	-	-	-	1
Joshua	5	1	6	2	2
Prince	-	-	1	-	-
J.A.	-	-	2	-	-
Testamark					
J.A.	-	-	-	-	1
Testamark/X					
A.C.	2	-	1	-	-
Testamark					
Joseph	2	-	3	1	1
Christian	2	-	-	-	-
Roberts	14	1	19	3	2
Total	25	2	32	6	6
Grand total	27	2	32	6	7

However, in (166) there is one probable occurrence of *mangkéé* with a complement verb with the sense of ‘need’. This is the most straightforward interpretation of the dialogue, assuming that in (166) both *am*’s refer to the boy, asking his mother whether he should go by land or by ship. But since there is an alternative interpretation, where the first *am* of (166) refers to the mother asking her son whether he wants to go by land or by ship, I have coded this occurrence as indeterminate (Table 6.23).

- (166) *Shi maa a see am, am fo loo: aⁿ sa*
 3S.POSS mother PST say 3SG 3SG FO go 3SG IRR
fin shi popáá a di andə shi daa. Am a
 find 3S.POSS father LOC DET other side there 3SG PST
see, am mangkéé loo by lan o by ship. Am see,
 say 3SG want go by land or by ship 3SG say
am ding beetee loo by lan.
 3SG think beter go by land
 ‘His mother said to him that he should go: he will find his father over
 at the other side. He asked [said] whether he needed to go by land or
 by ship. She said, she thinks it’s better to go by land / She asked [said]
 whether he wanted to go by land or by ship. He said, he thinks it’s
 better to go by land.’
 (Joshua; de Josselin de Jong 1926: 11)

In the eighteenth century EDC data (represented by Magens in Table 6.24), *mankeer* occurs only twice as a main verb. One of these occurrences has a volitional reading, already given above in (163).¹¹⁴ In the other occurrence

¹¹⁴ Stolz (1986: 196) interprets *mankeer* in (i) from Magens (1770) as volitional, despite Hesseling’s (1905: 143) translation of the example as ‘need’. I believe Hesseling’s interpretation fits the context better. It seems inappropriate to give as the sole reason for refusing to accept the offer to come in by an insisting host that one has the desire to go elsewhere. It seems much more polite to convey instead that one has to refuse because of a need to go and visit the neighbor, but this is of course very much open to interpretation. Therefore, I have coded the example in (i) as indeterminate between the ‘need’ and the volitional reading. Note further that when modal auxiliaries primarily serve as speech act markers, the actual meaning of the auxiliary is not that relevant.

- (i) A: *Guj Morgen, mie Vrient. ...*
 good morning 1SG friend
 ‘Good morning, my friend.’
 B: *Maer Ju no wil sit beetje?*
 but 2SG NEG VOL sit a.bit
 ‘But don’t you want to sit down?’
 A: *Mie no hab Tit.*
 1SG NEG have time
 ‘I don’t have time.’
 B: *Gief een stoel hieso.*
 give INDF chair here
 ‘Give a chair here.’
 A: *Neen, mie no kan blief.*
 no 1SG NEG can stay
 ‘No, I can’t stay.’

given in (167), the meanings of ‘lack’ and ‘need’ overlap. Here, *mankeer* is truly ambiguous between the two meanings: both interpretations are available at the same time and it is irrelevant for the interpretation which one meaning was actually intended.

- (167) A: *Hueso, die Pons no bin guet? ... Die bin sterk genug?*
 why DET punch NEG COP good 3 COP strong enough
 ‘Why, is the punch not good? (...) Is it strong enough?’
 B: *Die mankeer beetje Soopie.*
 3 want a.bit rum
 ‘It needs some rum/It lacks some rum.’
 (Magens 1770: 57, cited in Hesseling 1905: 148)

In the eighteenth century MDC data, *mankeer* is used differently. Unlike in the twentieth century data (Table 6.23), eighteenth century *mankeer* is hardly used as an auxiliary verb, but predominantly as a main verb (Table 6.24).

Unlike in the ADC data, *mankeer* is attested in the eighteenth century MDC data in the sense of ‘lack, be missing’:

- (168) *Jender ben Heiden nochal, en jender no ken God*
 2PL COP heathen quite and 2PL NEG know God
 ... *Dan die loop soo, as die ben tuschen jender twee.*
 then 3 go so as 3 COP between 2PL two
En die reden ben, die liefde mankeer na onder jender.
 and DET reason COP DET love lack LOC under 2PL
 ‘You are heathens, and you don’t know God (...). Then things go the way they do between you two. And the reason is that love is missing between you/there is no love between you.’
 (Oldendorp nd.b, cited in Stein 2010: 251)

And whereas in the twentieth century ADC data *mangkée* is most frequently used to express volition and only occasionally expresses the sense of ‘need’, eighteenth century MDC *mankeer* most frequently expresses the latter sense:

-
- B: *Wat maek? ...*
 what make
 ‘How come?’
 A: *Mie mankeer for praet mit Ju Bierman.*
 1SG want for talk with 2SG male.neighbor
 ‘I need to talk to your neighbor.’
 (Magens 1770: 53-54, cited in Hesseling 1905: 142-143)

- (169) *Die gesonde sender mankeer geen Genees Meester, maar die*
 DET healthy 3PL need no physician but DET
Sieke sender.
 sick 3PL
 ‘Not the healthy need a physician, but the sick.’
 (Böhner nd.b: 108)

Table 6.24: Meaning of *mankeer* in the eighteenth century Dutch Creole data

	Main verb		Without complement verb				
	‘need’	indet.	‘lack’	‘need’	‘lack/need’	‘want’	indet.
Eighteenth century German-speaking authors							
Oldendorp	-	-	2	2	-	-	-
Auerbach	1	-	-	-	-	-	-
<i>Bible</i>							
Böhner	-	-	-	7	-	-	-
<i>Bible</i>							
Böhner	-	-	1	-	-	-	-
Total	1	-	3	9	-	-	-
Eighteenth century Danish-speaking authors							
Psalmboek	-	-	-	-	-	-	1
Lund	1	1	2	3	-	-	-
Magens	-	1	-	-	1	1	-
Total	1	2	2	3	1	1	1
Grand total	2	2	5	12	1	1	1

The Dutch etymon of Dutch Creole *mankeer/mangkée* is the stem *mankeer* of the Dutch verb *mankeren*, which was originally used with the same meanings as French *manquer*. The WNT reports that Dutch *mankeren* already had the sense of ‘lack, be missing’, in addition to the sense of ‘miss’ in the late seventeenth century (WNT), which is also supported by the letters in the Brieven als Buit/Letters as Loot (van der Wal 2013) and the Gekaapte Brieven (van der Sijs 2012) databases:

- (170) *soo heel nvember inde golf blijft sal vl geen rijs*
 so whole November in.the gulf stay will 2 no rice
manqueren,
 lack.INF
 ‘if you stay in the gulf for all of November, then you will not be lacking any rice.’
 (brievenalsbuit.inl.nl; To Lukas Pruijs, 22 september 1662 by Daniel Lestevenon)

- (171) *Want d'Italianennietpratticasijn sulcken reijse te doen*
 because the Italians not used be such journey(s) COMP do. INF
en(de) Hamb(urgse) noch Fransse schepen comen hier niet soodat
 and Hamburg nor French ships come here not so. that
*het ons aen de passag(ieren) sal **manqueren***
 it us PREP the passangers will lack. INF
 'Because the Italians are not used to make such journeys and
 Hamburg and French ships do not come here, so that we will be
 lacking passengers.'
 (gekaaptebrieven.nl, 1665, scan-id 367)

Since neither French *manquer* nor Dutch *mankeren* has the sense of 'need' most frequent in the eighteenth century Dutch Creole data, this meaning must be an innovation in Dutch Creole. Given that Magens (1770) uses *mankeer* in the volitional sense (Table 6.24), it is safe to assume that eighteenth century ADC *mangkée* was also used in the senses of 'need' and 'want' around that time. The finding that both the Moravian and the Danish Lutheran missionaries did not use *mankeer* as an expression of volition signifies without doubt that they failed to acquire or refused to adopt *mankeer* in this sense, whereas they did use *mankeer* occasionally in the original West European sense of 'lack'.

Since *mankee(r)* is attested in the sense of 'need' in the eighteenth century MDC data, EDC source Magens (1770), and in twentieth century ADC, we may assume that eighteenth century ADC used *mankee(r)* in this sense, too. It is now easy to assume that *mankeer* was polysemous in the sense of 'need' and 'want' from the moment the language stabilized and that the missionaries picked up only the sense of 'need' and innovated the West European sense of 'lack'. But when we look at the other volitional item *wel/wil*, this is not necessarily the most probable scenario. This discussion on the development of *mankeer/mangkée* is continued in §6.7.4.2.

Let us now turn our attention to the item *wil/wel*. Again, the twentieth century ADC data concur with Magens (1770), the eighteenth century EDC source. In the ADC data, *wel* is volitional when there is a complement verb:

- (172) *Een frufu sinia gi am di brotkrom wa a drep fa boo*
 INDF morning 3PL PST give 3SG DET bread.crumbs REL PST drop of on
*di taul. Am na **wel** jet di.... Ham a wees hunggu.*
 DET table 3SG NEG VOL eat 3.INAN 3SG PST be hungry
 'One morning, they gave her the bread crumb that had dropped from
 the table. She didn't want to eat it [i.e., she refused to eat it]. (...) She
 was hungry.'
 (Joshua; de Josselin de Jong 1926: 22)

When there is no complement verb, *wel* is used to express a positive attitude towards something, which is a characteristic property. I use the English verbs ‘like’ and ‘love’ to represent this meaning:

- (173) *Een fa boo een tid di a ha een kleen*
 one of on INDF time 3.INAN PST have INDF little
meeⁿshi. Shi grani a wel am. Ham a gi
 girl 3S.POSS grandmother PST like 3SG 3SG PST give
am een roo karbús.
 3SG INDF red cap
 ‘Once upon a time, there was a little girl. Her grandmother liked her.
 She gave her a red cap.’
 (Joshua; de Josselin de Jong 1926: 18)

When there is no complement verb, *wel* may still have a volitional meaning, as can be seen in (174). But Table 25 shows that the sense of ‘like’ is more frequent in the data.

- (174) *Di weewulf, sini kan drai a di sot fa mani sini wel.*
 DET werewolf 3PL can turn LOC DET sort of way 3PL VOL
 ‘Werewolves, they can turn into anything they want.’
 (Roberts; de Josselin de Jong 1926: 66)

Table 6.25: Meaning of *wel* in the twentieth century Dutch Creole data

	With complement verb		Without complement verb		
	volition	indet.	‘want’	‘like/love’	indet.
A. Magens	1	1	-	3	-
Total	1	1	-	3	-
Joshua	9	-	-	4	1
Prince	1	-	-	-	-
J.A. Testamark/X	2	-	-	-	-
Joseph	-	-	-	1	3
Roberts	17	-	1	-	-
Total	29	-	1	5	4
Grand total	30	1	1	8	4

In the EDC data, Magens (1770) uses *wil* in exactly this sense:

- (175) *Ju no kik almael Volk wil hem gue?*
 2SG NEG see all people like 3SG well
 ‘Don’t you see that everybody likes him very much?’
 (Magens 1770: 73, cited in Hesseling 1905: 173)

Yet, the volitional sense is more frequent in the eighteenth century data (see Table 6.26).

Table 6.26: Meaning of *wil* in the eighteenth century Dutch Creole data

	With complement verb	Without complement verb		
	‘volition’	‘want’	‘like/love’	indet.
Eighteenth century German-speaking authors				
Oldendorp	12	4	-	1
Auerbach <i>Bible</i>	44	6	-	-
Auerbach	1	-	-	-
Böhner <i>Bible</i>	157	28	-	1
Böhner	2	-	-	-
Total	216	38	-	2
Eighteenth century Danish-speaking authors				
Psalmboek	11	3	-	-
Lund	46	9	3	-
Magens	37	9	3	-
Magens <i>Bible</i>	1	-	-	-
Total	95	21	6	-
Grand total	311	59	6	2

Lund (1798) is the only missionary to use *wil/wel* in this sense, as in (176). It is interesting to mention that Lund always writes *wil* when it is volitional, and *wel* when it is equivalent to ‘like/love’. Note that (176) also contains *hab liev* ‘love’, which alongside *liev* ‘love’, is the usual expression in the MDC data.

- (176) *Ons Vader! joe die bin nabinne die Heemel! [...] die*
 1PL father 2SG REL be inside DET heaven REL
hab joe Mensen liev veel meer innerlig, as die best
 have 2SG people dear much more profound as DET best
Owers na Aarde kan wel sellie Kint sender.
 parents LOC earth can like 3PL child 3PL
 ‘Our Father! You who are in heaven! (...) who loves Your people
 much more profoundly than the best parents can love their children.’
 (Lund 1798: 119)

This polysemy of volition and ‘like/love’ of *wel/wil* found in the twentieth century ADC data, eighteenth century EDC data, and Lund (1798), is also found in Akan, one of Dutch Creole’s possible substrate languages (see §2.1.4). Comparing (177a) to (177b), we see that the item *pɛ* can be used in

Akan to express volition but also a (characteristic) positive attitude towards the situation in question (Boadi 1972: 139).¹¹⁵

- (177) a. *Me-pe se me/me noa aduan.*
 1SG-want that 1SG/1SG:FUT cook food
 ‘I want to cook food.’
 b. *Me-pe aduan-noa.*
 1SG-want food-cook
 ‘I love to cook/ I like cooking food.’
 (Boadi 1972: 140)

Felix Ameka (p.c. 17 March 2015) kindly informed me that in Ewe volition is expressed via a different construction (see 178) than the concept of ‘liking’ (see 179).

- (178) *Me-dí bé má-qa nú*
 1SG-want COMP 1SG:SBJV-cook thing
 ‘I want to cook’
 (179) *Me-lɔ-ɔ nú-qa-qa*
 1SG-like-HAB thing-RED-cook
 ‘I like cooking.’

However, Ameka also mentions that the verb *dí* can mean ‘want, like, seek, look for’ (2008: 156), so possibly in the past *dí* was polysemous in the way Akan *pe* still is. Fongbe, which may have exerted substrate influence too, also has the item *bà* which seems to express both ‘want’ and ‘like’.

Therefore, I do not argue that Akan *pe* ‘want; like’ is at the base of the same polysemy in Dutch Creole *wel/wil* at the exclusion of items in other potential substrate languages. Rather, I simply want to argue for Kwa substrate influence as the source of the polysemy of Dutch Creole *wel/wil*.¹¹⁶

¹¹⁵ The fact that the complementation strategy in (177a) is different than in (177b) is not relevant for this discussion, assuming a model of the lexicon such as Jackendoff’s (1975: 641) in which e.g. the meaning, the phonological representation, and the selectional features are all seen as independent features, which can thus be dissociated. Thus, in the case of Dutch Creole *wel*, the semantics of Akan *pe* ‘want; like/love’ have been copied to the Dutch lexical item *wil* ‘want’ that corresponds semantically to only one of the meanings of Akan *pe*. The syntactic features of Akan *pe* have not been copied into Dutch Creole.

¹¹⁶ Hesseling (1933: 270–271) sees this polysemy of *wel/wil* as one of many indications that Papiamentu restructured Dutch Creole considerably. Hesseling points out that Papiamentu *quie(r)* means both ‘want’ and ‘love’, just like Spanish

Finally, in the eighteenth century data *wil* is most frequently used as a volitional auxiliary:

- (180) *En mi a will ook gern gie na die Creol-*
 and 1SG PST VOL also gladly give LOC DET creole
Taal, sommige Woord-en meer, die ons hab na ander
 language some word-PL more 3 1PL have LOC other
Taal, en die mankeer na die Creol Taal.
 language and 3 lack LOC DET creole language
 ‘And I also wanted to give the creole language some extra words that
 we have in other languages and that lack in the creole language.’
 (Böhner nd.b: iv)

Also when there is no complement verb, *will* mostly expresses volition:

- (181) *Kristus wil, dat almaal Mens sender sa neem an*
 Christ VOL that all human 3PL IRR take on
na sie Kerk door die Doop.
 LOC 3S.POSS church through DET baptism
 ‘Christ wants that all people will be admitted in His church through
 baptism.’
 (Lund 1798: 127)

There is however a not insignificant number of cases in Böhner’s Gospel Harmony translation (Böhner *Bible* in the tables), where *wil(l)* expresses intention instead of volition:

- (182) *Jesus a antwoord, en a see na sender: Brek deese Tempel,*
 Jesus PST answer and PST say LOC 3PL break PROX temple
en na drie Dag-en mi will recht die op (weeran).
 and LOC three day-PL 1SG INT right 3 up again
 ‘Jesus answered and said to them: “Pull down this temple, and in three
 Days I will raise it up (again).”’
 (Böhner nd.b: 45)

querer. Although many of the similarities between Papiamentu and Dutch Creole that Hesseling points out are remarkable, I believe that only those correspondences that cannot be explained otherwise can be taken as an indication of Papiamentu influence on Dutch Creole. Therefore, I believe Papiamentu *quie(r)* or *ker* can only be taken into consideration as a possible source for the polysemy of Dutch Creole *wel/wil* once a considerable part of Hesseling’s (1933) features cannot be explained otherwise as the result of influence from Papiamentu. But even then, substrate influence for Dutch Creole *wel/wil* need not be excluded.

These cases can be accounted for as straightforward cases of translation from German. When we look at the corresponding sentence in Lieberkühn's original Gospel Harmony, we see that German *wollen* is used to express intention, as shown in (183). I have not distinguished the use of volitional *will* from intentional *will* in Table 6.26, since this is often not as clear as in (182) and seems a typical feature of Böhner's Gospel Harmony translation only.

- (183) *Jesus antwortete und sprach zu ihnen: Brechet diesen Tempel ab, und in dreyen Tagen will ich ihn aufrichten.*
 Jesus answered and said to them break PROX
 temple off and in three days will I him raise.up
 'Jesus answered and said to them: "Pull down this temple, and in three Days I will raise it up (again)."'

(Lieberkühn 1820: 29)

6.7.4.1. Conclusion *wel/wil*: lexifier versus substrate influence

The substrate origin of the 'want'-'like/love' polysemy in twentieth century Dutch Creole *wel/wil* points to this being an early feature of ADC. The attestation of *wel/wil* with the meaning of 'like/love' in the proverbs in Magens (1770) and Lund (1798) show that this meaning already existed in the eighteenth century even though no other eighteenth century sources document it. The fact that Magens (1770) makes use of *wel* 'like/love' suggests that this feature – undoubtedly of ADC origin – was available to EDC speakers. Even though Lund is the only missionary to use *wel* in this sense, I want to argue that Lund's use of *wel* in the sense of 'like/love' is not coincidental or unrelated to its use in Magens (1770) and the twentieth century ADC data. In my view, the fact that Lund makes a distinction between volitional *wil* and 'like/love' *wel* counts as evidence for this. In de Josselin de Jong (1926), *wel* is the more frequent phonological realization of *wil*, but this is a feature retained from West-Flemish, where according to e.g. De Bo (1873: 451), "the incomplete accented i sounds in West-Flemish like the short French è. Thus, *ik, krik, mik, lip, tip, is, spit*, etc. sound as if one wrote in French: *èque, crèque, mèque, leppe, teppe, esse, spète*, etc."¹¹⁷

Thus, the pronunciation of *wil* as *wel* is very unlikely to be an innovation in ADC, but rather a retention of the pronunciation in the most frequent variety of superstrate Dutch in the decisive period in which Dutch Creole was created. The West Flemish planters and their families who spoke EDC will have pronounced a word as *wil* as *wel*. Thus, the fact that Lund

¹¹⁷ "De onvolkomen i onder den klemtoon, klinkt in 't Westvl. gelijk de korte fransche è. Dus *ik, krik, mik, lip, tip, is, spit*, enz. luiden alsof men in 't fr. schreve *èque, crèque, mèque, leppe, teppe, esse, spète*, enz."

distinguishes between volitional *wil* and main verb *wel* ‘like/love’ suggests that he had acquired the latter form-function pair independently from the former and from hearing rather than reading.

6.7.4.2 Conclusion *mangkée/mankeer*: lexifier versus substrate influence

I paused the discussion on the development of *mankeer/mangkée* above in §6.7.4 by saying that the scenario that *mankeer* was polysemous in the sense of ‘need’ and ‘want’ from the moment the language stabilized and that the missionaries picked up only the sense of ‘need’, though perhaps the simplest, is not necessarily the most probable one.

Since at least the basic features of EDC derive from ADC (like the use of preverbal negation, preverbal TMA markers, invariable verb forms, vocabulary, the focus marker (*d)a* and the general preposition (*n)a*) the use of the item *mankeer* must also derive from ADC, particularly since *mankeer*’s meanings in the eighteenth century EDC data correspond to those of *mangkée* in the twentieth century ADC data. In Magens (1770), our only source of EDC, *mankeer* occurs once in the meaning ‘want’, once in a context where the difference between the meanings ‘lack’ and ‘need’ has been neutralized and once in a context where the functional difference between ‘need’ and ‘want’ has been neutralized. This situation is suggestive of semantic development of the meaning ‘need’ out of ‘lack’ and ‘want’ out of ‘need’, at least in EDC.

In MDC, *mankeer* is not particularly frequent and occurs only with the meanings ‘need’ and ‘lack’. The sense of ‘lack’ can either be interpreted as a remnant of the earliest, original sense of *mankeer* that it also had in the lexifier language Dutch, or as influence from the missionaries’ native languages, where eighteenth century German *mankieren* and Danish *mankere*, too, respectively meant and mean ‘lack’.

The sense of ‘need’ however must be seen as based on actual usage in both eighteenth century EDC and ADC. The finding that the sense of ‘need’ is only a secondary meaning in twentieth century ADC suggests that it is a retention of an older meaning that was once more dominant. This is supported by the fact that we find *mankeer* used with more or less the same meaning in eighteenth century EDC.

An alternative explanation for the fact that the missionaries did not use *mankeer* in the volitional sense might be that *mankeer* was not yet (commonly) used as a volitional when the missionaries started learning Dutch Creole, or only subconsciously, *mankeer* perhaps being associated to its speakers with the sense of ‘need’ and *wel/wil* with the sense of ‘want’. Thus, we must consider the possibility that *mankeer* developed its volitional use only in the course of the eighteenth century. This scenario is consistent with the situation in the twentieth century ADC data, where the less frequent

sense of ‘need’ can be seen as a retention of an older meaning and the dominant meaning of ‘want’ as a later development.

6.7.5. Dutch Creole *kan*: substrate reinforcement?

The only item discussed in this chapter for which there are no form alternatives is *kan* (although it is also occasionally realized as *ka* becoming homophonous to the perfect marker *ka*). As shown and discussed in §6.4.2.1, *kan* is a situational marker that can express any type of dynamic “modality” and habitual aspect.

Similarly, Dutch *kunnen* ‘can’ can also express any type of dynamic “modality”. Unlike Dutch Creole *kan*, Dutch *kunnen* cannot be used as a general habitual marker, although, as Nuyts (2001: 188) points out, it can sometimes take on a habitual interpretation:

- (184) *Jan kan knap vervelend zijn.*
 ‘John can be very annoying at times.’
 (Nuyts 2005: 16)

Dutch Creole *kan* is also used to express deontic acceptability and permission. Although Dutch *kunnen* can be used to express these concepts, it is “much less prototypical as [a marker] for this kind of meaning” (Nuyts et al. 2010: 18, fn2). Rather, the verb *mogen* ‘be allowed to’ is used, for which there is no reflex in Dutch Creole (see §6.5.6 and §6.5.7).

There is one occurrence of Dutch Creole *kan* expressing epistemic possibility. Again, Dutch *kunnen* can be used to express epistemic possibility but only to a rather limited extent (see Nuyts 2001; 2007).

Thus, Dutch *kunnen* is not excluded from being used to express any of the categories discussed, but it is proto-typically a situational marker. The main differences between Dutch *kunnen* and Dutch Creole *kan* are the fact that Dutch Creole *kan* seems to have covered those categories that are expressed in Dutch by *mogen*, and that Dutch Creole *kan* seems to have generalized and grammaticalized the expression of habitual aspect. Thus, Dutch Creole *kan* corresponds fairly well to how Dutch *kan* is used. But how does it relate to form-function equivalents in Dutch Creole’s likely substrate languages Akan and Ewe?

Owusu (2014) is the first to give a comprehensive overview of how modality and related concepts are expressed in Akan. Her data are taken from discussions on two Akan-speaking Ghanaian radio stations. She illustrates how Akan *tumi* ‘be able to’ can be used dynamically (Owusu 2014: 71–74):

1) to describe someones *ability*:

- (185) *Ama tumi noa aduane.*
 Ama can cook food
 ‘Ama is able to cook.’
 (Owusu 2014: 72)

2) to describe an ability of things:

- (186) *Mmra tumi hye nipa ma no ye nnea ɔ-m-pe.*
 law can force person for 3SG.OBJ do things 3SG-NEG-like
 ‘The law can force people to behave in a way they do not like.’
 (Owusu 2014: 74)

Abilities are characteristic of an entity. Therefore, when an ability is expressed, the interpretation of *tumi* may in certain cases have an *habitual* interpretation:

- (187) *Vanessa tumi to dwom ma awosen gu wo*
 Vanessa can sing song for goose.pimples pour 2SG
 ‘When Vanessa sings I get goose bumps.’
 (Owusu 2014: 72)

Native Akan-speaking colleagues have informed me that *tumi* is also used to express *participant-external dynamic possibility*:

- (188) *Ama a-sie sika bi.*
 Ama PERF-hide money some.
Seisei o-be-tumi a-tɔ dade-pɔnkɔ/ baasikele
 Now 3SG-FUT-can CONS-buy metal-horse bicycle
 ‘Ama has saved some money. Now she can buy a bicycle.’
 (Solace Yankson, pc., 13 February 2015, writes Akuapem, speaks Akyem, sentence elicited)

- (189) *Ama a-to susu.*
 Ama PERF-save money
Seesei deɛ o-be-tumi a-tɔ sakre
 now TOP 3SG-FUT-canCONS-buy bicycle
 ‘Ama has saved some money. Now she can buy a bicycle.’
 (Reginald Duah, pc., 20 February 2015, Asante, sentence elicited)

Furthermore, *tumi* can be used to give *permission* (i.e., function as a directive):

- (190) *Wo-tumi pue*
 2SG-can go.out
 ‘You may leave.’
 (Owusu 2014: 76)

Finally, *tumi* can be used *epistemically*:

- (191) *Kofi tumi da.*
 Kofi can sleep
 ‘Kofi may be asleep.’
 (Owusu 2014: 77)

That having been said, there are also other items that can be used to express some of the above concepts. For example, the habitual form of the verb – which “has no segmental representation in surface phonology” (Boadi 2008: 16) but is “indicated by a high tone on the final syllable of verbs” in contrast to the stative form of the verb, which ends in a low tone (Boadi 2008: 17) – can also be used to indicate physical ability, as in (192a).

- (192) a. *O-n-te wo nne. N' aso a-si.*
 3SG-NEG-hear 2SG voice can ear PRF-block
 ‘He doesn’t/cannot hear you. He is deaf.’
 b. *O-n-tumi n-te wo nne. N' aso a-si.*
 3SG-NEG-can NEG-hear 2SG voice can ear PRF-block
 ‘He cannot hear you. He is deaf.’
 (Solace Yankson, pc., 13 February 2015, Akuapem/Akyem, sentences elicited)

In the Gbe languages such as Ewe, however, there is a strict division between inherent physical ability on the one hand and acquired or circumstantial physical ability on the other, with the ability verb being used only to express the latter type (which I discuss later). In Akan, there does not appear to be such a strict division, given that (192a) without and (192b) with *tumi* are said to be equivalent.¹¹⁸

To express *permission* in Akan, the optative or jussive can also be used:

¹¹⁸ Please note that this observation is based on only one speaker, speaking the Akyem variety and writing in Akuapem. More research might be needed to confirm this or put it into perspective.

- (193) *Me-n-fa akutuo no baako?*
 1SG-OPT-take orange DEF one
 ‘May I take one of those oranges?’
 (Solace Yankson, pc., 13 February 2015, Akuapem/Akyem, sentence elicited)

- (194) *ɔ-n-kɔ?*
 3SG-OPT-go
 ‘May he/she go?’
 (Manyah 2009: 74)

The future marker *bɛ* in combination with epistemic adverbs such as *ebia* ‘maybe’ may be used to express *epistemic possibility*:

- (195) *Ebia Kofi bɛ-wɔ fie*
 maybe Kofi FUT-be home
 ‘Kofi may be at home.’
 (Reginald Duah, pc., 20 February 2015, Asante, sentence elicited)

However, *bɛ-* most typically expresses *epistemic probability* (see Boadi 2008: 23–24):

- (196) *Siká nó bɛ-wɔ hó árá.*
 money DEF FUT-be.at there just
 ‘The money is most likely there.’
 (Boadi 2008: 23)

In Ewe, the verb *té ɲú* ‘be able’ (lit., ‘press body’) can be used to express dynamic *ability* and *possibility* (Ameka 2008: 145):

- (197) *M-a-téɲú á-dró nú má*
 1SG-POT-be.able SC-lift thing that
 ‘I am able to lift that thing.’
 (Essegbey, van den Berg & van der Vate 2012: 71)
- (198) *Ga dɔ Kofi sí azɔ̃, â-téɲú á-fle*
 money reach Kofi hand now 3SG:POT-be.able SC-buy
vu-a.
 vehicle-DEF
 ‘Kofi has got money now, he can buy the vehicle.’
 (Essegbey, van den Berg & van der Vate 2012: 71)

Téńú is also used to express *permission*:

- (199) *Kofi á-téńú á-yi afima*
 Kofi POT-be.able SC-go there
 ‘Kofi may go there.’
 (Essegbey, van den Berg & van der Vate 2012: 71)

However, the modal *téńú* is not used with inherent physical ability, such as the ability to see due to having been born with eyes that function¹¹⁹. In those cases, the progressive is used instead (Essegbey, van den Berg & van der Vate 2012: 70):

- (200) *ńútsu-a mé-le nú kpó-m o*
 man-DEF NEG-be.at:PRES thing see-PROG NEG
 ‘The man cannot see (lit. the man is not seeing).’
 (Essegbey, van den Berg & van der Vate 2012: 71)

Ewe does not use *téńú* either to express epistemic possibility, where it uses the potential marker *a-* by itself (Essegbey, van den Berg & van der Vate 2012: 72):

- (201) *Kofi á-nɔ afé-á me*
 Kofi POT-be.at:NPRES house-DEF inside
 ‘Kofi may be in the house.’
 (Essegbey, van den Berg & van der Vate 2012: 72)

Thus, in Akan and Ewe there is variation that has not been retained in Dutch Creole (see Table 6.31 below). For example, there is no Dutch Creole reflex of the Akan use of the optative to express permission (it is also not immediately obvious which Dutch Creole construction would be a suitable equivalent to the Akan optative). Likewise, the Ewe distinction between participant-inherent dynamic physical ability and participant-external dynamic physical ability is not made in Dutch Creole. Unlike Ewe, Dutch Creole uses the possibility auxiliary *kan* in both cases.

Apart from these differences, both potential substrate languages discussed, Ewe, Akan can use the same item for permission and deontic acceptability as for dynamic ability and possibility. We may see this pattern as having facilitated the generalization of Dutch Creole *kan* from expressing dynamic possibility to expressing permission, from the perspective of the

¹¹⁹ When the verb *téńú* would be used in a sentence as (198), there would be a participant-external dynamic interpretation, where the man cannot see because something is blocking his view (Essegbey, van den Berg & van der Vate 2012: 71).

etymological source Dutch *kunnen*, which, as already noted above, may be used as such but is not typically used to express permission.

Table 6.31: Grammatical means of expressing possibility-related concepts in Akan and Ewe

Possibility	Dutch	ADC	Akan	Ewe
dyn-inh	<i>kunnen</i>	<i>kan</i>	Ø (habitual) (<i>be</i>)- <i>tumi</i> ‘future+be able’	<i>le</i> + nominalized verb + - <i>m̃</i> (progressive)
dyn-ext/- sit	<i>kunnen</i>	<i>kan</i>	(<i>be</i>)- <i>tumi</i>	<i>â-téŋú</i> (potential+be.able)
dir/deo	<i>mogen</i> ; <i>kunnen</i>	<i>kan</i>	<i>n</i> - (optative) (<i>be</i>)- <i>tumi</i>	<i>â-téŋú</i>
epi	<i>kunnen</i>	<i>kan</i>	<i>be</i> - <i>tumi</i>	<i>â</i> - (potential)

6.8. General conclusion

6.8.1. Recapitulation of the main conclusions

This chapter’s main question was: how do the twentieth century Dutch Creole modal, situational and volitional expressions relate to their (seventeenth century) Dutch, eighteenth century MDC/EDC, (late eighteenth century) English, and finally, to potential substrate Akan and Ewe counterparts? §§6.2–6.6 provided the basis to allow us to answer this question. §6.2 introduced Nuyts’s (e.g. 2005; 2006; 2009) framework of modality used. §6.3 discussed how I decided what occurrences of modal *fo* to include, since some of them are (potentially) ambiguous between modal and manipulative constructions.

§6.4 provided a description of the categories of modality expressed by preverbal items in twentieth century ADC data. All three necessity modals, *ha fo*, *fo*, and *mut/mo*, can function as dynamic situationals and as directives, used to give commands or suggestions. One of the speakers (Roberts) uses *fo* significantly more frequently when uttering a command or suggestion (directive function) and *ha fo* significantly more frequently when uttering a dynamic situational. Joshua displays a tendency towards the same functional distribution. Another distributional difference is in the co-occurrence with negation: of the three necessity modals, there are only negated occurrences for *fo*.

In contrast to the necessity-related concepts, there is only one modal to express all possibility-related concepts: *kan*. It also functions as an habitual aspect marker.

Finally, there are two verbs used to express volition: *mangkée* and *wel*. Also for this pair, there is a significant difference in distribution with respect to negation for both speakers contributing most data: *mangkée* predominantly occurs without and *wel* with negation.

§6.5 compared the findings for the twentieth century data to the nineteenth century data. Although the nineteenth century data are much smaller in size, contain much less occurrences of modals, and thus do not display the same range of variation that we find in the twentieth century data, they show to a considerable extent that the same modal items were used with the same meanings and functions as in the twentieth century data.

In §6.6, I compared the twentieth century data to the eighteenth century data. The latter contain almost all the modal items also found in the former. However, in terms of function, there are considerable differences between the two data sets. *Mut* is the main necessity modal fulfilling the whole spectrum of necessity-related concepts. The construction *hab vor* ‘have to’ is equivalent in form to twentieth century *ha fo*, but corresponds in function rather to a different construction where the sense of necessity is not grammaticalized. This construction also exists (among other languages) in the West Germanic languages. The English counterpart is the ‘have something to (eat/drink/do/say)’ construction. Eighteenth century MDC *mankeer* differs from its twentieth century equivalent *mangkée* in meaning: rather than volition, it expresses sometimes the sense of ‘lack’, sometimes the sense of ‘need’.

The main differences in the inventory of modals between the eighteenth and the twentieth century data are: a) the lack of occurrence of modal *fo*; and b) the occurrence of permissive and prohibitive *d(a)erf*, which was probably introduced by the Moravian missionaries in order to have a modal auxiliary specialized in expressing these two concepts, since they were used to having such a modal at their disposal in their native German. In the twentieth century Dutch Creole data, there is no one modal specialized in expressing permission and prohibition.

Finally, §6.7 compared the twentieth and eighteenth century Dutch Creole data with four other languages that may have influenced the (documentation of the) Dutch Creole language at some point in time: Dutch, English, Akan, and Ewe. These languages can be grouped into two categories: i) European languages with which the creators or speakers of Dutch Creole came into contact (Dutch and English); ii) African languages spoken by the creators, speakers, or learners of Dutch Creole (Akan and Ewe). A third category of languages, the native languages of the authors of the eighteenth century documentation, German and Danish were also considered whenever relevant. (They were already occasionally considered in §6.6.)

§6.7 was divided into five subsections of which the first three were devoted to expressions of necessity-related concepts. §6.7.1 looked into whether there was any effect of either Dutch or English or two of the potential substrate languages, Akan and Ewe, on the use of Dutch Creole *ha fo/hab vor* in the eighteenth and the twentieth century data. I conclude that the *hab vor* construction documented in the eighteenth century data but also in the twentieth century documentation is similar in use and meaning to the (seventeenth century) Dutch *hebben te* ‘have to’ construction. By contrast, the twentieth century use of *ha fo* as a specialized necessity modal corresponds broadly speaking to English *have to*, which was in use in English of the late eighteenth and nineteenth century when Dutch Creole speakers shifted to English over time. The corresponding substrate constructions to express necessity-related concepts differ too much in structure from Dutch Creole *ha fo* so that we cannot attribute the preference of *ha fo* over *mut* in twentieth century Dutch Creole to substrate influence.

In §6.7.2, I addressed the origin of Dutch Creole *fo* as a modal auxiliary. There are two possible scenarios: either Dutch Creole *fo* is a reduction of Dutch Creole *ha fo* or it has developed independently of Dutch Creole *ha fo*. The likelihood of either scenario is discussed taking into account the existence of modal *fo/fu/fi* etc. in many other Atlantic creoles. The data do not allow us to draw definite conclusions with respect to either scenario. However, the discussion showed that if *fo* is a reduction of *ha fo*, this did not happen as the result of *ha* merging categorically with past marker (*h*)*a* or the negator *na/no/nu*. Still, at some point when *ha fo* and *fo* were in variation with each other, a tendency – or possibly a rule since there are no negated occurrences of *ha fo* – developed to use negation with *fo* rather than *ha fo*. Dutch Creole modal *fo* does not combine with any TMA marking, which can be accounted for in either scenario as a feature retained from its origin as a complementizer.

§6.7.3 discussed eighteenth Dutch Creole *bin vor* and twentieth century Dutch Creole *bin fo* in relation to their Dutch, German, Danish, and English counterparts. This shows that *bin vor* in the eighteenth century Dutch Creole data corresponds to Dutch *te ... zijn*, German *zu ... sein*, and Danish *være at*, the main lexifier and the native languages of the authors of the eighteenth century data. By contrast, twentieth century Dutch Creole *bin fo* corresponds to English *be to*, both of which are essentially different from the former group of constructions in the continental Germanic languages. This shows that both Dutch Creole *bin vor* in the eighteenth century data and Dutch Creole *bin fo* in the twentieth century data may be the result of imposition from the author or speaker’s native or dominant language respectively.

§6.7.4 discussed the possible interpretations of the differences and correspondences between the eighteenth and the twentieth century Dutch

Creole data with regards to the documentation of the volitional items *mankeer/mangkée* and *wil/wel*. The semantic polysemy of ‘want’-‘like/love’ of Dutch Creole *wel/wil* is undoubtedly the result of Kwa substrate influence so that we can only conclude that eighteenth century ADC *wel/wil* was used in the same way as twentieth century ADC. This is supported by the fact that the eighteenth century EDC source as well as one eighteenth century MDC source document *wel/wil* not only as expressing volition, but also the concept of ‘like/love’. Thus, here it is obvious that the bulk of the MDC data misrepresent how *wil* was used in eighteenth century Dutch Creole by failing to adopt the sense of ‘like/love’.

Likewise, the missionaries failed to adopt the volitional use of *mankeer*, which the EDC source shows to have been in use by the 1770s. The finding that the sense of ‘need’ is only a secondary meaning in twentieth century ADC suggests that it is a retention of an older meaning that was once more dominant. This is supported by the fact that we find *mankeer* used with more or less the same meaning in eighteenth century EDC. An explanation for the fact that the missionaries did not use *mankeer* in the volitional sense might be that *mankeer* was not yet (commonly) used as a volitional when the missionaries started learning Dutch Creole, or only subconsciously, *mankeer* being associated to its speakers with the sense of ‘need’ and *wel/wil* with the sense of ‘want’. Thus, we must consider the possibility that ADC *mangkée* developed its volitional use only in the course of the eighteenth century.

Finally, §6.7.5 discussed the degree of lexifier or substrate influence on the use of Dutch Creole *kan*. Both Dutch *kunnen* and Akan *tumi* can be used for all possibility-related concepts, even though they may not be the default expression for all concepts. Ewe does not use its possibility/ability modal *â-téŋú* for participant-inherent dynamic situationals, but we do not find this restriction for Dutch Creole *kan*. Dutch Creole *kan* is also a marker of habitual aspect, but Dutch *kunnen*, Akan *tumi*, and Ewe *â-téŋú* are not. Nevertheless, both Dutch *kunnen* and Akan *tumi* may have an habitual interpretation in certain contexts.

A global overview of the forms discussed in the six main language varieties is presented in Table 6.32.

Table 6.32: General and simplified overview of the modal system of languages relevant to compare with Dutch Creole

	NEC dynamic- inherent	dynamic- ext/sit	directive/ deontic	epistemic	PSBL	dynamic- inherent	dynamic- ext/sit	directive/ deontic
Ewe	(<i>n</i>) <i>á-</i> (subjunc- tive)	<i>éle bé</i> 'it is that'	<i>éle bé</i> <i>edze</i> <i>éhiā bé</i> 'it is needed that'	<i>éle bé</i>		<i>le</i> + nomina- lized verb + <i>-m'</i> (PROG)	<i>â-tényú</i> (potential+ be.able)	<i>â-tényú</i>
Akan	<i>ɛ-sɛ sɛ</i> 'it's fitting that' <i>ɛ-wɔ sɛ</i> 'it is/has that'	<i>ɛ-sɛ</i> <i>ɛ-wɔ sɛ</i>	<i>ɛ-sɛ sɛ</i> <i>ɛ-wɔ sɛ</i> <i>ɛ-hiā sɛ</i> 'It's neces- sary that'	<i>ɛ-sɛ sɛ</i> <i>ɛ-wɔ sɛ</i>	Ø (habitual) <i>be-tumi</i> (future)- 'be able'		<i>(be)-tumi</i>	<i>n-</i> (optative) <i>be-tumi</i>
ADC	<i>ha fo</i>	<i>ha fo; fo;</i> <i>mut</i>	<i>fo; ha fo</i> <i>mut</i>	<i>fo</i>	<i>kan</i>	<i>kan</i>	<i>kan</i>	<i>kan</i>
English (±1800)	<i>must</i> <i>need (to)</i> <i>have to</i>	<i>must</i> <i>have to</i> <i>(need (to))</i>	<i>must</i> <i>should</i> <i>have to</i>	<i>must</i>	<i>can</i> <i>may</i>	<i>can</i> <i>may</i>	<i>may</i>	<i>may</i> <i>can</i>
MDC/ EDC	<i>mut</i> <i>mankeer</i>	<i>mut</i>	<i>mut</i>	N.A.	<i>kan</i>	<i>kan</i>		<i>daerf</i> <i>kan</i>
Dutch (±1700)	<i>moeten</i>	<i>moeten</i> <i>(hebben te)</i>	<i>moeten</i> <i>(hebben te)</i>	<i>moeten</i>	<i>kunnen</i>	<i>kunnen</i> <i>hebben te</i>	<i>mogen</i> <i>kunnen</i>	

Table 6.32 (<i>continued</i>)	
	epistemic Volition
Ewe	<i>â-</i> (potential) <i>dí</i> (bé) 'want, like, seek, look for' + say = that
Akan	<i>bé-</i> (future) <i>pé</i> 'like'
ADC	<i>kan</i> <i>mangkée</i> <i>wel</i>
English (±1800)	<i>may</i> <i>want</i>
MDC/EDC	<i>kan</i> <i>wil</i> (<i>markeer</i>)
Dutch (±1700)	<i>mogen</i> (<i>kunnen</i>) <i>willen</i>

The inventory of Dutch Creole modal items contains quite a number of distinct forms that can be used for the same concept. But these do not seem to have been specialized for a specific function. Thus, we find one modal for all possibility-related concepts (*kan*), two volitional modals (*mangkée* and *wel*), and three modals for all necessity-related concepts (*fo*, *ha fo*, and *mut/mo*) in twentieth century Dutch Creole, of which *mut/mo* is significantly less frequent than the other two necessity modals. Yet, in Roberts's speech – and possibly in Joshua's speech, too – *fo* appears to be the preferred choice for commands and suggestions (necessity-related directives). Furthermore, the feature of negation has predictive power over the two pairs *fo-ha fo* and *wel-mangkée*: the one syllable forms are predominantly used with and the two syllable forms without negation.

6.8.2. Discussion of the main conclusions

When comparing Dutch Creole to other Caribbean creoles, one quickly comes to the conclusion that Dutch Creole shows less substrate influence in the verb domain than do, for example, the Surinamese creoles. This is perhaps most strikingly illustrated by the following two features. The first one is the existence of absolute past time reference marking in Dutch Creole in contrast to relative past time reference marking in Surinamese creoles (see Chapter 3); and related to this is the absence of a verb form associated with perfective aspect: in Dutch Creole, perfective situations are usually marked with the past tense marker ((*h*)*a*) – which is also used for past imperfective situations – but sometimes with the perfect marker (see Chapter 5). The

second is the frequency with which the two languages express property concepts through verbal predicates instead of via a copula plus adjective (see van Sluijs et al. 2016).¹²⁰ The verbal strategy does occur in Dutch Creole, but the copula plus adjective strategy is the default. By contrast, in Surinamese creoles the situation is the reverse, more like in the West African substrate languages. This more profound structural influence of Western European languages in Dutch Creole may result from the Moravian mission, who had a major influence on the enslaved population in the Danish West Indies. Their MDC variety was characterized, even more than EDC, by heavy influence from their continental Germanic mother tongues (German and Danish).

Thus, we may assume that in the course of the eighteenth century, ADC was influenced by MDC, as a result of which some more European type features were either introduced or favored over more African type features. But in the case of the two Dutch Creole necessity modals *ha fo* and *mut* there is another dimension that complicates the issue: except for the phonotactics (see Sabino 1994), neither item is more ‘African’ than the other as a necessity modal. Thus, thinking solely in terms of a contrast between an African versus a European type feature is not always helpful.

Moreover, we cannot attribute all occurrences of European type features that are not shared with the West African substrate languages to MDC influence. Some of such features in ADC may have been established early on in its development. The difficulty is to know to which features this applies (which we never can with certainty).

Then, some European type features in twentieth century Dutch Creole may also be the result of imposition from English and/or Virgin Islands English Creole, which was/were the dominant language/s of nineteenth and twentieth century speakers of Dutch Creole. At least, we can identify more easily which features might result from English (or English Creole) influence, but here the difficulty is that we cannot always exclude that the

¹²⁰ Property concepts refer to properties, qualities or other characteristics of referents, such as dimension, color, age, and value (Dixon 1977), and human propensity, physical, form, material, and gender (Stassen (1997: 168). They are often expressed through adjectives, if a language has this category, or through words that are more nominal or more verbal (Thompson 1988; 2004). The less verbal property concept expressions may require a copula. In Dutch Creole, the more verbal expressions may take the form of a resultative construction (with perfect marker *ka*), i.e., the property concept is expressed as the result of a change-of-state described by the verb. In Dutch Creole, the verbal strategy is only used for less time-stable states or those that are the result of a change-of-state, all other predicates are expressed via the copula plus adjective strategy. But even those property concepts for which the verbal strategy is used, the copula plus adjective strategy can often be used as well. By contrast, the verbal strategy is the default in the Surinamese creoles.

Dutch Creole feature had already developed before English became so influential, or that Dutch Creole developed this feature independent of influence from English. Thus, since twentieth century *ha fo* and *bin fo* are similar to their English equivalents *have to* and *be to*, but differ from their Dutch lexifier equivalents, there is a well-founded reason to suspect that the use of these Dutch Creole items has been influenced by English. Which in turn suggests that there was an older necessity marker in ADC than *ha fo*, used in earlier eighteenth century ADC, and the most likely candidate for that is Dutch Creole *mut*, whatever the phonological realization.

Thus, the case studies of how the Dutch Creole modal, situational, and volitional markers are represented in the various Dutch Creole data sets show that the conclusions to be drawn from the eighteenth century documentation are different for each individual item. But they also show that – with necessary precautions – they can definitely deepen our understanding of earlier stages of Dutch Creole.

CHAPTER 7. CONCLUSIONS

7.1. Findings

In this thesis, I have investigated the expression of Tense, Modality, and Aspect (TMA) across different speakers and varieties of Virgin Islands Dutch Creole (abbreviated to Dutch Creole). This thesis has two analytic perspectives: the first one is descriptive and concerned with the TMA categories expressed in Dutch Creole as such, as reflected in the central question of this thesis: *How did the TMA categories of Virgin Islands Dutch Creole develop?* The diachronic aspect of this question asks for a comparison of Dutch Creole data from different points in time. However, the significant differences in social background of the language users that produced the various Dutch Creole data demand an understanding of the variation in the TMA system from a sociolinguistic perspective. This inspired the second question: *Which patterns of variation do we encounter in the development of TMA in Virgin Islands Dutch Creole?*

This second question is important to address in order to answer the first, because in the historical Dutch Creole documentation the two dimensions of time and language variety come together. This means that differences between the eighteenth and the twentieth century data may be attributed to the fact that the data differ on either one or both of these two dimensions. In other words, do apparent changes reflect actual diachronic change or is it simply that different groups of language users and different registers are involved?

On the basis of social characteristics of the language user, three different varieties of Virgin Islands Dutch Creole could be identified (see §2.2): i.e., Dutch Creole as used by the missionaries (MDC), Dutch Creole as used by the population of European descent (EDC), and Dutch Creole as spoken by the population of African descent (ADC). Differences in the expression of TMA across these three groups of language users could potentially be accounted for by various factors: a) *variety differences*: they represent differences between the varieties or registers documented; b) *individual differences*: they represent features unique to the language user in question; c) *language change*: they represent different (diachronic) stages of a single variety. Thus, factor a) refers to (socio)lectal variation; factor b) to idiolectal variation; and factor c) to diachronic differences.

Given the highly multilingual setting in which Dutch Creole was used, there are many language contact scenarios that may have influenced the development of Dutch Creole and the way it has been documented. For the

ADC speakers, there are two such scenarios addressed: (i) *substrate influence*: can influence from their ancestral West African languages account for any of the TMA features or constructions? (ii) *shift to English (Creole)*: can some of the TMA features or constructions be accounted for as the result of imposition from English or English Creole? For the MDC writers, the question of *L1 imposition* is most pertinent: are some differences related to the fact that the missionaries were not native speakers of Dutch Creole but stem from their continental Germanic L1s? The scenario of L1 imposition is also relevant for the EDC speakers, who also had their ancestral languages in their linguistic repertoire.

Chapter 1 contained some theoretical framing of the studies in this thesis as well as the formulation of the research questions. Chapter 2 provided an elaborate sketch of the developments in the sociolinguistic situation in the Danish West Indies/US Virgin Islands from the seventeenth to the twentieth century, including as of yet unpublished background information of de Josselin de Jong's informants.

Chapter 3 shows that there are two different systems underlying the variation in the expression of absolute past time reference in ADC on the one hand and MDC and EDC on the other. This difference points to variety differences that can be accounted for in terms of L1 imposition for the MDC and EDC language users. In twentieth century ADC data predicates with (absolute) past time reference are most frequently marked with the past marker *(h)a* and are only infrequently unmarked for past time reference in narratives. The use of bare verbs correlates to the aspectual value of the situation that the predicate refers to (with past habitual and progressive situations, *(h)a* is significantly less frequently used than with past perfective situations) or its corresponding narrative function and a universal cognitive processing effect as syntactic priming. In a sample of eighteenth century MDC and EDC data, *(h)a* is also significantly less frequently used with past habitual/characteristic situations but not with past progressive situations. Also, unlike in the twentieth century ADC data, in the eighteenth century MDC sample predicates referring to past perfective and progressive situations are virtually categorically marked with *(h)a*. The fact that Dutch Creole has a category of absolute as opposed to relative past time reference makes the language different from many other Caribbean creoles. Other differences are: i) the fact that even in the contexts most favourable to zero pasts, overt pasts are still much more frequent than zero pasts in Dutch Creole; and ii) unlike in Caribbean English creoles, perfective situations are most (rather than least) favourable to the use of past marker *(h)a*.

The study of *imperfective* marker *le* in Chapter 4 shows that there were innovations in EDC independent of ADC and MDC, such that *le* was not only used for imperfective but also perfective situations. The use of *le* in

MDC (which is restricted to contexts with present time reference) possibly represents an in-between step between the true imperfective marker that ADC possesses (be it *le* or *lo* in form), and EDC. This clearly shows that in the expression of imperfective aspect the ADC, MDC, and EDC data all three have different underlying systems. Moreover, the discussion suggests a change in EDC of how *le* was used, as well as a change in MDC from *le* to *lo* as the marker to express imperfective aspect. As defined above, it is difficult to link the assumed change of EDC *le* to language contact. The change in MDC most probably results from the missionaries adapting to the ADC speakers. Possibly, the change took place in the missionary directed speech of the inner circle of Afro-Caribbean *helpers* (see §2.1.5.1).

The other study in Chapter 4 shows innovations in the late nineteenth and twentieth century ADC data within the domain of imperfective aspect that most likely reflect on-going language change, possibly connected to the nineteenth century shift to English/EC. The data document an incipient compounded construction involving adjoined imperfective marker *lo* + VP that is restricted to progressive situations; and a prospective construction *lo lo* that has become established in the speech of one specific speaker, while it is incipient in some other speakers. These documented individual differences in the expression of prospective aspect in ADC speakers could not, however, be linked to different usage conditions that could point to different stages of grammaticalization: both prospective constructions can be used with verbs where a movement interpretation is not available and both occur with third person subjects.

Chapter 5 shows that Dutch Creole preverbal aspectual *ka* does not express so much completive, resultative or perfective aspect (as has been suggested in the literature), but is functionally most like a perfect. There are no essential differences in the use of perfect marker *ka* in the ADC, MDC, and EDC data. The use of the related completive marker *kaba* appears to result from substrate influence. Differences in documentation between eighteenth century MDC and EDC on the one hand and twentieth century ADC on the other suggest language contact influence from VIEC for ADC that manifests itself in the use of an alternative preverbal construction of *kaba* that is much more frequent than the post-verbal construction attested in the eighteenth century data. The use of Dutch Creole *kaba* in post verbal position to express that an event has finished corresponds to how finish verbs are used in Dutch Creole's probable substrate languages, Akan, Ga, and Ewe. More specific functions expressing full completion of the event or a semantic nuance that translates in English with *already* (event already finished) are found only in Ewe (and other Gbe languages), not in Akan or Ga. Remarkably, these functions of *kaba* that demonstrate West African substrate influence are primarily documented in eighteenth century MDC

and EDC. This shows that we can say with confidence that with respect to this specific construction the MDC and EDC data document a feature that must ultimately stem from eighteenth century ADC. As a result, the finding that twentieth century ADC uses preverbal *kaba* to express termination of an event – preverbal *kaba* has not been attested in eighteenth century data – is most likely to be interpreted as a change possibly the result of the shift to EC (VIEC preverbal *done*).

Finally, Chapter 6 shows that there are quite a few differences in how modals and volitionals are documented in the various kinds of data and sources. Starting with the volitionals, we see that the EDC source and the ADC sources overlap in their documentation of *mankee(r)*, while the MDC sources are different, possibly more conservative rather than simply using only the meaning similar to continental Germanic equivalents. The polysemy of volitional *wel/wil* (translatable as ‘want’ in some cases and ‘like’ in others; probably of West African roots) seems a rather stable feature as it is attested in the EDC data, the ADC data, and one MDC source. Other MDC authors show much continental Germanic influence. The situation of the two volitional items suggests a change, which in the basis means that I assume that *mankeer* developed its volitional sense when *wel* was already in use as a volitional. Another feature attested in both the ADC and EDC data but lacking in the MDC data is the use of possibility modal *kan* as a habitual marker. Moravian MDC introduced permissive modal *d(a)erf* from German *darf*, probably since ADC has no single item to express both permission and lack of permission (= prohibition).

The situation of the necessity modals *ha fo*, *fo*, and *mut* is rather complex, due to the fact that it is hard to disentangle whether we are dealing with variety differences (MDC/EDC *mut* versus ADC *ha fo/fo*) and consequent contact influence from MDC/EDC *mut* into ADC; or whether *ha fo/fo* is a later innovation in ADC and *mut* a retention of an older modal. This is complicated even more by the question of whether *fo* is a reduction of *ha fo* or whether it developed independently of *ha fo*.

7.2. Answering the research questions

The first question – *How did the TMA categories of Virgin Islands Dutch Creole develop?* – can only be properly answered when we take into account the second question: *Which patterns of variation do we encounter in the development of TMA in Virgin Islands Dutch Creole?* There is an undeniable presence in MDC of TMA markers and categories that stem from the individual missionary’s L1. Moreover, almost all markers and categories discussed that occur in both the twentieth century ADC and the eighteenth century MDC data are not used in exactly the same way in these two groups

of data. Most of these differences cannot be attributed to a difference in genre (spoken narrative versus (constructed) dialogues versus liturgical translations) but they are more profound in nature: these differences can be accounted for by the fact that MDC is an L2 variety of Dutch Creole and they have demonstrably different grammatical systems. This is exemplified by the different conditioning of the variables ((*h*)*a* and \emptyset) to mark (absolute) past time reference.

Yet, not all differences between the twentieth century ADC and the eighteenth century MDC data can be interpreted solely in terms of indicating different language varieties. This is most obvious for *kaba*, which shows West African influence most where we least expect it: in the eighteenth century data, which were written by German and Danish speaking missionaries, L2 language users of Dutch Creole.

The study of imperfective *le* in the eighteenth century data shows that EDC too was subject to change and did not remain entirely stable throughout the eighteenth century. Moreover, the twentieth century ADC data show that new categories were developing in the nineteenth century (the locative progressive marker *bin lo* evolving from general imperfective *lo* and the prospective marker *lo lo*) and the massive imposition of English and/or English Creole constructions and lexicon are indicative of ADC having undergone change in the course of the nineteenth century. An example of such change may be the use of completive *kaba* as a preverbal marker in the twentieth century data (possibly on the example of VIEC preverbal *done*), as opposed to its post verbal occurrence in the eighteenth century data. Thus, I conclude that differences between the eighteenth century MDC and EDC and the twentieth century ADC data are not necessarily entirely variety differences, but there are also diachronic differences attestable.

The complexity of the data is the cause that when the patterns of variation are similar for certain features or constructions, this does not mean that we can draw the same kind of conclusions. It is not uncommon that we find the same variable pair (volitional *mankee(r)* and *wel/wil*) in the eighteenth and twentieth century data as a whole, but there is considerable variation between individual eighteenth century sources in the sense with which *mankeer* is used (lack, need, or volition). Here, the polysemy of *mankeer* suggests a (unfortunately not datable) semantic development of the word, also in ADC. The fact that eighteenth century MDC sources do not use *mankeer* as a volitional at all may result from a situation where the missionaries were either unsure how to handle recent developments, dismissive of change, or perhaps simply not aware of the new development at all. Besides expressing volition, Dutch Creole *wel* is also used in the sense of like/love and this polysemy is also found in West African substrate languages. The fact that it also occurs in eighteenth century EDC and MDC

data suggests that this polysemy is a stable feature. In the twentieth century data, *mankee(r)* and *wel/wil* interact with the expressing of negation: the former marker is most frequently used without preverbal negator, while the latter most frequently is. A similar interaction with negation is found for the two necessity modals *ha fo* and *fo*: only the monosyllabic *fo* occurs with negation.

The category of imperfective aspect involves a considerable amount of variation across different types of data and individual sources that each of them tells its own story. The most salient difference is the use of marker *le* in the eighteenth century sources, the early nineteenth century Moravian grammar that signals a change from *le* to *lo*, and the categorical use of *lo* in the nineteenth and twentieth century ADC sources. If we sidestep the difference in marker, there is still a difference in tempo-aspectual category across the three varieties ADC, MDC, and EDC: only ADC has a true general imperfective marker, MDC *le* is restricted to present imperfective (and thus equal to a present tense), while EDC *le* is not imperfective at all, but also used in past perfective situations and thus does not seem to correspond to any tempo-aspectual class at all. There may be a (unsurprising) parallel here in how the MDC data correspond to the EDC/ADC data in the documentation of *le* compared to *mankeer*: the MDC data are more conservative in their use of a feature that seems to be undergoing some kind of change. Thus, in both these cases, the data show differences on the time axis and on the language variety axis.

There are also cases where the eighteenth century and the twentieth century data concur: in all three documented varieties *kan* is an ability/possibility modal and a habitual marker. After close scrutiny of the data, I have similarly found that *ka* is a perfect marker (and not a resultative, completive or perfective marker) in all documented varieties.

The TMA constructions and their features that potentially result from language contact are listed in Tables 7.1 and 7.2 with the potential language contact scenario.

Table 7.1: TMA constructions and their features in twentieth century ADC that are potentially the result of language contact influence

Substrate influence	Shift to English or English Creole
post verbal completive <i>kaba</i>	progressive <i>bin lo</i>
like/love–volition polysemy of <i>wel/wil</i>	prospective <i>lo lo</i>
	preverbal instead post verbal completive <i>kaba</i>
	necessitive <i>ha fo</i>
	necessitive <i>bin fo</i>

The progressive construction (*bin lo*) might be a case of contact-induced grammaticalization, as its occurrence in the twentieth century ADC data is not that of a fully grammaticalized and conventionalized progressive as is its English counterpart. Instead, the locative character of the construction is still very present, even though there are some occurrences

Table 7.2: TMA constructions and features in MDC that likely result from imposition from the missionaries' L1 (German or Danish)

L1 imposition at the group level (high frequency in the data)	
conditioning of the alternation (<i>h</i>) <i>a</i> and Ø on predicates with absolute past time reference	
L1 imposition at an individual level (incidental occurrence in the data)	
<i>innovative TMA construction/feature:</i>	<i>source construction/feature:</i>
intentional use of <i>wil</i> (Böhner)	German <i>will</i> in Gospel Harmony
necessitive <i>mut</i> for permission (Magens)	Danish <i>maa</i>
unambiguous marker of permission	German <i>darf</i>

Of the cases of L1 imposition in Table 7.2, three concern deviant use of an existing Dutch Creole item copying a pattern from the L1. The conditioning of the (*h*)*a*-Ø alternation on predicates with past time reference is very probably too subtle to have been perceived so the rules of the L1 (which do not conflict with the Dutch Creole rules) have been imposed. Böhner's intentional use of volitional *will* is the result of following the German source text that he translated too closely.

7.3. Issues for further research

For the study of language contact effects in the Dutch Creole data, I have looked at historical corpora contemporary to the Dutch Creole data under investigation, wherever feasible, or else consulted information based on contemporary historical data. For the regional spoken Dutch with the most influence on Dutch Creole, I have consulted information on coastal West Flemish. Besides that, I have investigated the databases of seventeenth and eighteenth century Dutch letters (van der Sijs 2012; van der Wal 2013) written by people from all social classes. Since these people were either those who had travelled by sea to places including the Caribbean, or their relatives, friends or business contacts writing to them, there is a fascinating match between the kind of people writing the letters and the speakers of Dutch that helped shape Dutch Creole in the Danish West Indies.

The effect of biblical written German on the Moravian Gospel Harmony translations into Dutch Creole could be studied thanks to a copy of a reprint

of the original German Gospel Harmony (*Evangelienharmonie*) by the Moravian Samuel Lieberkühn.

The possibilities of larger scale variation studies comparing data from different time periods, documented varieties, speakers and languages are only beginning to open up with the advent of digitally searchable and online accessible creole corpora, such as the NEHOL database for Dutch Creole, without which this thesis would not have been possible. Particularly in the search for very specific and detailed information in a range of languages, such as a study of Dutch Creole TMA markers in comparison to languages with which its speakers were in contact requires, one is very much dependent on coincidence whether this information has ever been unearthed and put to paper. Well curated databases are therefore an essential tool for the academic community to facilitate detailed studies that combine data from a range of different languages and language varieties. This is in fact part of the objectives of CLARIN, the European research infrastructure for language resources and technology which financially supported (the latest phase of) the creation of the Dutch Creole NEHOL database. The data for all analyses performed in this thesis can be retrieved from the online NEHOL database for verification, but the true importance of the NEHOL database is that the Dutch Creole data are accessible to all online and easily searchable thanks to the digitalization and annotation projects.

For creoles and other contact languages, the recently constructed Atlas of Pidgin and Creole Language Structures (APiCS, Michaelis et al. 2013), the contact language counterpart of the World Atlas of Language Structures (WALS, Dryer & Haspelmath 2013) is an important step in bringing together information of many contact languages. The Database of Early Pidgin and Creole Texts (DEPiCT, Velupillai & Huber 2015) is still in development and will be making the step of providing actual data from the earliest recorded stages of as many pidgins and creoles possible.

A number of issues have been touched upon in this thesis that call for further investigation. One of the issues that needs a proper investigation of its own is substrate influence. In §2.1.4, I discussed how demographic data point to the potential importance of two language groups: i) the languages in relative vicinity to the eastern half of the coast of current day Ghana – the place where the Danish West India Company had a fort in the late seventeenth century – belonging to the Kwa language family (including western Gbe or Ewe); and ii) languages spoken in Angola and possibly neighbouring places near the West Central African coast, belonging to the (narrow) Bantu language family. Given that the importance of the second group of languages was discovered only very late in the writing process of this dissertation, its focus is entirely on the Kwa languages. Traces of Bantu were already found by Parkvall (2000: 153) in the lexicon and potentially in

the phonology of Dutch Creole, which shows that this is potentially a fruitful area for further investigation. Furthermore, a proper investigation of substrate influence should take into account the typological frequency of the feature or construction in question to see whether its occurrence in Dutch Creole is really the result of substrate influence. Other possible sources and the role of universal principles of language should be assessed as well. To this end, findings for other contact languages where the same features or constructions are found should be taken into account, particularly since in most cases, there are many such correspondences between Dutch Creole and other Caribbean creoles, such as the category of completive aspect discussed in §5.2.4 and §5.4, and the existence of serial verb constructions. This is particularly the case because the same West African languages were involved – to varying extents – in the development of many of the Atlantic creoles. Since these particular two features occur in Atlantic creoles and West African languages as well as East Asian languages and Pacific creoles, the issue of whether these are typologically common (and therefore probably independent developments) or rather areal features (where substrate influence is a probable account for their occurrence in these creoles) should be at the centre of such investigation.

Another question to be answered in future studies is how variation in other categories and classes than TMA marking relates to the findings in this study: are there again different systems underlying the variation across the various types of Dutch Creole data, and if so, what features of the category in question in the eighteenth century data can still be linked to the ADC data? Attempts at such investigations have been made with respect to the (in)variable syntactic position of adverbial particles (such as *af* in *neem af* ‘take off’) in van Sluijs, Muysken & Los (2017) and the variable expression of property concept items – often expressed cross-linguistically as adjectives – occurring both as verbal elements and adjectives requiring a copula (see van Sluijs, van den Berg & Muysken 2016). Another example of a variable feature whose underlying system is well studied across the different documented varieties of Dutch Creole is the presence or absence of the third person plural pronoun as a plural marker on e.g., nouns, pronouns and relative markers (see Hinskens & van Rossem 1996; Sabino 2012).

Finally, there is the issue of language obsolescence and death that was introduced in Chapter 3. There it turned out unsatisfactory as an explanation for the expression of past time reference in twentieth century ADC in comparison to other Caribbean creoles. It was argued in earlier studies, notably in Bickerton (1981: 75), that the late nineteenth and twentieth century data were unreliable as they were distorted by the fact that the language was obsolescent at the time of documentation. Sabino (1990) countered this by demonstrating that the last speaker of Dutch Creole

maintained two distinct phonological systems: one for Dutch Creole and one for English Creole. Although it is not language death per se, certainly correlated to the disappearance of Dutch Creole is the fact that a variety of Virgin Islands English or English Creole has become the dominant language of all remaining speakers of Dutch Creole in the twentieth century. In Chapters 4–6, I have discussed variants or features (progressive *bin lo*, prospective *lo lo*, preverbal instead of post verbal completive *kabáá*, necessitive *ha fo*) that could be interpreted as more recent innovations possibly the result of this language shift.

I have assumed influence from Virgin Islands English Creole on these just mentioned TMA markers not just because the language shift on the current US Virgin Islands is a historical fact, but because we see English or English Creole influences on all linguistic levels in the twentieth century Dutch Creole data. I have tried to gather information on what English Creole looks like in general and in respect to the specific categories addressed in this thesis. Yet, Virgin Islands English Creole as well as Virgin Islands English and the Englishes of the Eastern Caribbean region are all only scarcely documented and merit study of their own.¹²¹ Historically, there are significant differences between the speech of the inhabitants of the three islands which may in part be related to the stronger position of Dutch Creole on St. Thomas and St. John compared to St. Croix. Yet, in some respects the speech of particular groups of speakers of St. Croix resembles Dutch Creole more than does the speech of people from St. Thomas and St. John, as in the case of the necessity modal with past time reference: Speakers of English Creole almost always use the form *had to*, but Gilbert Sprauve (personal communication, 18 September 2013) found that older speakers from the north side of St. Croix say *Mi a ha fo* ‘I had to’, which – at least on paper – is entirely identical to the most common way of expressing this meaning in the twentieth century Dutch Creole data. Sprauve’s observation that this phrase is found in other Caribbean English Creoles is fascinating and demonstrates the need to study the nineteenth and twentieth century Dutch Creole data in the language’s ecology amidst neighbouring Caribbean Englishes and the refreshing new perspectives this has to offer for our understanding of the development of Dutch Creole as well as the Eastern Caribbean English creoles and their affinities. One of the pertinent questions to answer is in what respect and to what extent English Creole influenced Dutch Creole and vice versa. Sprauve’s observation suggests compelling new insights about the expression of past time reference (with the form *a*) and necessity (with the forms *ha fo* and *fo*) in Dutch Creole and Eastern Caribbean English creoles.

¹²¹ Reinecke (1975: 413–414) mentions some articles and sources of Virgin Islands English Creole. Avram (2013: 207) provides a more elaborate list of VIEC sources.

Gilbert Sprauve, the authority in the Virgin Islands on both Virgin Islands Dutch and English Creole warns that Virgin Islands English Creole has been changing considerably for several decades as a result of changing demographics and media influence (personal communication, 26 March 2013). Despite the fact that Dutch Creole has gone extinct and English Creole is still spoken, it is Dutch Creole that has been much better documented and investigated. Given that English Creole as it used to be spoken is disappearing, the Dutch Creole data may prove essential for the study of the history of Virgin Islands English Creole as well.

All in all, the study of TMA in Virgin Islands Dutch Creole shows how important and insightful accepting the perspective of variation can be in creole studies, since only this way individual and group differences can be integrated in linguistic analysis, an essential prerequisite for investigating effects of language contact.

APPENDIX A. (§2.1.4.)

Data from the slave voyages database excluding the Brandenburgers' data

Year	Voyage id ^a	Flag ^b	Ship Owner ^c	Enslaved disembarked ^d	Origin ^e (1)	Origin ^e (2)	Origin (3)
1673	WG 40	DK		103	[CB]		
1675	WG 40	P		10			
1678	WG 40–41	NL		16			
1680	20959	GB		195			
1683	21557	GB		22			
1688	35129	DK		200			
1690	35131	GB		109			
1695	11865	NL		(403) ^f			
1696	35409	DK	WGC	195	DGC		
1697	11867	NL		383			
1698	35051	DK	WGC	280	CB	Little Popo	
1699	11892	NL		311			
1699	21942	NL		50 [90] ^g			
1699	35052	DK	WGC	353	CB (93)	GC (456)	
1700	11890	NL		311			
1700	11894	NL		403	Angola (WCA)		
1700	35053	DK	WGC	238	CB	GC	
1702	11905	NL		403	Angola (WCA)		
1702	35055	NL		118 [300]	Angola (WCA)		
1703	35057	NL		42 [108]	Angola (WCA)		
1703	21256	GB	RAC	97	Gambia		
1704	35054	DK	WGC	295	C&W (13)	CB (145)	Whydah (191)
1707	35061	DK	WGC	393	CB (236)	Popo (72)	Whydah (139)
1707	10331	NL		387	Loango		
1708	35062	NL		84			
1708	35063	NL		212			
1709	10270	NL		- ^h	Loango/ Angola (WCA)		
1709	11907	NL		(403) ⁱ	Calabar		

Table continues on next page

Data from the slave voyages database excluding Brandenburgers (*continued*)

Year	Voyage id ^a	Flag ^b	Ship Owner ^c	Enslaved disem- barked ^d	Origin ^e (1)	Origin ^e (2)	Origin (3)
1709	11908	NL		330	Angola (WCA)		
1709	35159	NL		85	Calabar		
1709	35064	DK		313			
1710	35139	NL		312	Angola (WCA)		
1710	35069	NL		200	Angola (WCA)		

a = All records are taken from the Voyages Database (2016). Using the unique voyage id-number listed in the table, the corresponding record can be traced in the online database. Listings with the code WG are taken from Westergaard (1917) with the corresponding page number.

b = DK = Denmark; GB = Great Britain; NL = Netherlands; P = Portugal;

c = RAC = Royal African Company. WCA = West Central Africa; WGC = West Indian Guinea Company;

d = Lists the number of enslaved who disembarked at the Danish West Indies, which at the time only comprised St. Thomas. Numbers given in brackets indicate the total number of Africans disembarked, with the number preceding indicating the number of enslaved *not* purchased by the Brandenburgers (based on Westergaard 1917: 320–321).

e = CB = Christiansborg; DGC = Danish Gold Coast; GC = Gold Coast; C&W = C.C. Castle and Windward; WCA = West Central Africa

f = The Slave Voyages Database mentions a number of 403 Africans to have disembarked at St. Thomas, given as the principle place of landing. However, the source of this information, Paesie (2008: 360), mentions no more than that the goal of the journey was slave trade for St. Thomas and that the ship was taken by the French. Thus, it is not clear if the captured Africans actually arrived and stayed on St. Thomas.

g = The number in brackets is the total number of Africans disembarked, the number without brackets is the number of Africans *not* purchased by the Brandenburgers (based on Westergaard 1917: 320–321).

h = Most Africans drowned when the ship run aground near St. Thomas (Paesie 2008: 101). Of the 387 people from Angola, only 35 were rescued (Paesie 2008: 220). It is unclear whether those rescued actually stayed on St. Thomas.

i = The ship was captured by the French (Paesie 2008: 364). It is not clear if the enslaved stayed on St. Thomas.

APPENDIX B. (§2.1.4.)

Data from the slave voyages database of ships sailing under the flag of the Hanse Towns, Brandenburg

Year	Voyage id	Slaves disembarked	Origin (1)	Origin (2)
1686	21912	200		
1687	21913	320		
1687	21914	80		
1687	35128	80		
1688	35130	291		
1688	21961	80	Ouidah	
1690	21917	477		
1691	21919	299	Arguim	
1691	21920	299		
1692	21925	500		
1692	21923	500		
1692	21922	299		
1692	35132	500		
1692	21924	550		
1693 ^a	21930	335	Angola (WCA)	
1693	21932	598		
1693	21934	200		
1693	21950	729	Accra	Ouidah
1693	21926	550		
1693	21933	200		
1694 ^a	11684	403		
1694	21952	452	Ouidah	
1694	21937	180		
1694	21936	122		
1694	21935	450		
1694	21951	705	Ouidah	
1696	35133	630	Danish Gold Coast	
1696	21939	491		
1696	35134	480	Danish Gold Coast	
1697 ^a	11871	403		
1698	35137	624	Bight of Benin	
1698	35135	364		
1699	21957	400	Ouidah	
1699	21941	461		
1699	21940	619		
1700	35301	619		

Table continues on next page

Data from the slave voyages database of Brandenburg ships (*continued*)

Year	Voyage id	Slaves disembarked	Origin (1)	Origin (2)
1701	21943	421		
1701	35136	154		
1702	21944	212		
1702	21945	169		
1702 ^a	35056	88 ^b		
1703	21946	207		
1709	35066	39	Calabar	

a = Journey executed under the Dutch flag for the Brandenburg African Company on a ship owned by the company

b = The Brandenburg African Company bought these Africans from a Dutch interloper (Westergaard 1917: 321).

APPENDIX C. (§2.2.3.)

Letter written in Dutch Creole by Domingo Gesoe in 1741, published by Peter Stein (1985: 446):

An de Suster van de gemente.

mi no kan danck de heijland gnog voor Sie genade die Em a doe na mi.
mi bed nog na die heijland, voor Em kan mack mi na Sie wel, voor mi
wees altit kleijn voor Sie voet. mi no a weet dat die heijland a wees
soo goet, die a bewaer mi soo lang na alle mi Bosse tit, die mi a
laett Soo lang. die Suster Sender moe help mi bed na de heijland voe
mi kan blif altit onder sie voet banck. anders mi no wel hab as sie
bloet na mi hart. die kan mack mi Salig. mi ben voor Em voor dat Em
a koop mi. ander goet mi no weet, En ook mi no seek ander goet as al-
len de heijland. die blief altit na mi, voor dat Em ben mi al goet.
Soo mi sa bed die heijland voor Em mack mi soo as Em wel. mi no hab
Een goet meer. mi groet alle de Susters,

mi arm Joedig van de Compagnie.

mi groet nog Een mael alle de Susters, Amen.

APPENDIX D. (§3.4.)

Generalized linear mixed model fit by the Laplace approximation

Formula: Presence_Past ~ Aspect + Stative + Preceding_clause *

Preceding_sentence + (1 + Stative | Verb_lemma) + (1 | Speaker)

Data: absolutepast

AIC BIC logLik deviance

1783 1896 -872.6 1745

Random effects:

Groups	Name	Variance	Std.Dev	Corr
Verb_lemma	(Intercept)	0.45958	0.67793	
	Stativeyes	0.96641	0.98306	-0.131
Speaker	(Intercept)	0.00000	0.00000	

Number of obs: 2744, groups: Verb_lemma, 215; Speaker, 10

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	-2.1793	0.1689	-12.903	< 2e-16	***
Aspecthabitual	1.4973	0.3783	3.958	7.55e-05	***
Aspectinchoative	1.5775	0.6795	2.321	0.020261	*
Aspectindeterminate	-11.1310	584.1510	-0.019	0.984797	
Aspectiterative	-10.8752	1102.6292	-0.010	0.992131	
Aspectprogressive	1.8458	0.3554	5.193	2.06e-07	***
Stativeyes	1.0199	0.4270	2.389	0.016914	*
Preceding_clauseno	-0.8493	0.1783	-4.763	1.91e-06	***
Preceding_clausez	1.5149	0.3623	4.181	2.90e-05	***
Preceding_sentencecx	-0.3530	0.6760	-0.522	0.601556	
Preceding_sentencecz	-0.6673	0.6422	-1.039	0.298750	
Preceding_clauseno:					
Preceding_sentencecx	0.5982	0.7313	0.818	0.413421	
Preceding_clausez:					
Preceding_sentencecx	1.6034	1.1822	1.356	0.175019	
Preceding_clauseno:					
Preceding_sentencecz	2.5228	0.6670	3.782	0.000155	***
Preceding_clausez:					
Preceding_sentencecz	2.1356	0.7944	2.688	0.007179	**

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

[Note:

Preceding_clauseno = there is no clause preceding the current one within this sentence

Preceding_clausez = predicate unmarked for past time reference in preceding clause

Preceding_sentencecx = indeterminate whether predicate in preceding sentence is marked or unmarked for past time reference

Preceding_sentencecz = predicate unmarked for past time reference in preceding sentence]

APPENDIX E. (§3.5.1.)

First and final model, without Stativity as a fixed-effect factor

Generalized linear mixed model fit by the Laplace approximation

Formula: Presence_past ~ Aspect + (1 | Author)

Data: past

AIC BIC logLik deviance

167.1 182.9 -79.56 159.1

Random effects:

Groups	Name	Variance	Std.Dev.
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Author	(Intercept)	0	0
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Number of obs: 381, groups: Author, 3

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-4.1150	0.5041	-8.164	3.25e-16 ***
Aspectcharacteristic_stative/habitual	3.0997	0.5555	5.580	2.40e-08 ***
Aspectepisodic_stative/progressive	0.5039	1.1319	0.445	0.656

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Second model, including Stativity as a fixed-effect factor

Generalized linear mixed model fit by the Laplace approximation

Formula: Presence ~ Aspect + Stative + (1 | Author)

Data: past

AIC BIC logLik deviance

169 188.7 -79.51 159

Random effects:

Groups	Name	Variance	Std.Dev.
--------	------	----------	----------

Author	(Intercept)	0	0
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Number of obs: 381, groups: Author, 3

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-4.1184	0.5042	-8.168	3.13e-16 ***
Aspectcharacteristic_stative/habitual	2.9434	0.7449	3.951	7.77e-05 ***
Aspectepisodic_stative/progressive	0.3281	1.2618	0.260	0.795
Stativeyes	0.1934	0.6100	0.317	0.751

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Appendix F. (§5.3.1.)

Table 5.2a: Non-perfect functions of eighteenth century Dutch Creole *ka*

	Perfective	Past	Total
3.2.1	-	9	9
Magens	1	-	1
Böhner Preface	2	-	2
Magens bible	1	-	1
3231 (NT)	-	1	1
Lund	2	-	2
	6	10	16

Table 5.3a: Non-perfect functions of *ka* according to the stativity of the situation

	Perfective	Past	Total
stative	1	6	7
perception verb	-	1	1
event	5	3	8
	6	10	16

Occurrences of eighteenth century *ka* with stative predicates.

Experiential readings:

- (a) *Maer hem no ka wees na Copenhagen?*
 but 3SG NEG PRF be LOC Copenhagen
 ‘But hasn’t he been to Copenhagen?’
 (Magens 1770: 71)
- (b) i. *Hueso ju vaer?*
 how 2SG go
 ‘How are you (doing)?’
 ii. *Mie bin soo as mie ka wees altit*
 1SG be so as 1SG PRF be always
 ‘I am (doing the same) as I have always (been).’
 (Magens 1770: 53)

Continuative readings:

- (c) *As Pussie ka slaep, Rotto le kurriena Vluer.*
 when Cat PRF sleep Rat IPFV run LOC floor
 ‘When Cat is asleep, Rat runs over the floor.’
 (Magens 1770: 35)

- (d) *soo as Em ka beloof door die Mond van si heilige*
 so as 3SG PRF promise throughDET mouth of 3S.POSSHoly
Propheet sender, die ka wees van die Werldsi Beginn af.
 prophet 3PL REL PRF be of DETworld 3S.POSSbeginning down
 ‘as He had promised through the mouth of his holy prophets, who had
 been there since the beginning of the world.’
 ([Auerbach] nd: 11)

APPENDIX G. (§5.3.2.)

Twentieth century *ka* with a stative predicate with a resultant state interpretation:

- (f) *So dā blángku a kaa 'low am for hou som skap for*
so DET white.man PST PRF allow 3SG COMP keep some sheep for
am self.
3SG self
'So the white man had allowed him to keep some sheep for himself.'
(Prince; de Josselin de Jong 1926: 25)
- (g) *So dā difman a kaa bwaa shi stibo.*
so DET thief PST PRF save 3S.POSS money
'So the thief had stored his money'
(Joshua; de Josselin de Jong 1926: 20)

Twentieth century adjoined use of *ka*:

- (h) *Di daa a di een wa kaa kri shi tong steki fan*
3SG there COP DET one REL PRF get 3S.POSS tongue piece of
di kaa shiní af.
3.INAN PRF cut off
'That was the one who had (got) a bit of his tongue cut off.'
(de Josselin de Jong 1926: 43)

Ka referring to perfective events:

- (i) i. *Ham a see: grani a gi mi een kleen hon.*
3SG PST say granny PST give 1SG INDF small dog
'He said: "Grandmother gave me a little dog."
ii. *Mi kaa du am bini mi saku.*
1SG PRF do 3SG inside 1SG bag
'"I put it inside my bag."
iii. *Am a kaa doot.*
3SG PST PRF die
'"It (has) died."

APPENDIX H. (§5.4.1.)

Kaba in eighteenth century Dutch Creole:

- cii) post verbal, indicating that the event is performed to *completion*, with the object being totally consumed or, totally affected
- (j) *en sender jett kaba, wat ka bliev*,
and 3PL eat finish REL PRF stay
'and they ate up, what had remained'
(Böhner nd.c: 29)
- d) post verbal, in the sense of 'already':
- (k) *en die a wees as of em a ka bloei kaba*
and 3 PST be as if 3SG PST PRF flower finish
'and it was as if it had already flowered'
(Böhner nd.c: 129)
- e) *kaba* also occurs as part of the predicate, combined with a copula, such as *wees/ben* 'be' and *kom* 'become', and with the verbs *maak* 'make' and *loop* 'go'. It can take on a number of related meanings which seem to be derived from the lexical meaning 'finish':
- eiii) 'be gone', 'be destroyed'; it also combines with the preposition *met* 'with' in the sense 'be over (with someone or something)', i.e., 'be dead/destroyed' or 'going to be dead/destroyed':
- (l) *en slaa mi, dat mi kom kaba met mi Hoes*
and hit 1SG that 1SG become finish with 1SG house
'and [they will] hit me, so that my family will be gone/extirpated'
(Böhner nd.c: 116)
- (m) *En die Seven Jaarvan Overvloed, die a wees na*
and DET seven year of abundance REL PST be LOC
Egyptenlan<-d>, a loop kaba.
Egypt PST go finish
'And the seven years of abundance, that were there in Egypt, came to an end.'
(Böhner nd.c: 137)

- (n) *soo die sal kan gebuur dat mi eens skielik sal vaarover*
 so 3 IRR can happen that 1SG once sudden IRR go over
joe/ jender, en maak joe kabba.
 2SG 2PL and make 2SG finish
 ‘So it may happen that I will suddenly come over you, and destroy you.’
 (Böhner nd.c: 100)

APPENDIX I. (§5.4.3.)

The different functions of *kaba* in Dutch Creole, all attestations considered

Database name	Year	<i>finish</i>	pre-V	post V	<i>already</i>	pred	Total
Wold ABB	1770	1	-	-	-	-	1
1770 MAGENS	1770	3	-	-	1	1	5
PSBUK70	1770	3	-	-	-	1	4
3.2.1	after 1769	-	-	1	2	1	4
3.2.2	ca. 1780	1	-	2	-	1	4
3.2.5	ca. 1780	5	-	8	2	19	34
Magens39	1781	-	-	1	-	-	1
3.2.3.1	unknown	1	-	1	5	1	8
LUND98	1798	1	-	-	1	-	2
PRAET23	1823	4	-	-	-	1	5
dJdJ Joshua	1926	7	-	-	-	-	7
dJdJ J.A. T'mark	1926	-	1	1	-	-	2
dJdJ J.A. T'mark	1926	-	1	-	-	-	1
dJdJ Joseph	1926	1	-	-	-	-	1
dJdJ Christian	1926	2	-	-	-	-	2
dJdJ Roberts	1926	15	24 ^a	1	-	-	40
NELSON	1936	1	-	-	-	-	1
Total		45	26	15	11	25	122

a = Contains two occurrences of preverbal *kabáá* with complementizer *fo*.

APPENDIX J. (CHAPTER 6)

Table A: Function of necessity modals in de Josselin de Jong (1926)

	<i>fo</i>	<i>ha fo</i>	<i>mut/mo</i>	Total	%
Directive	66	21	2	88	51
Deontic	-	1	1	3	2
Epistemic	3	-	-	3	2
Dynamic	15	36	1	48	28
Indeterminate	6	19	-	28	16
Total	90	77	4	<u>171</u>	100

Table B: Function of modal *fo* in de Josselin de Jong (1926) per informant

	Dir	Deo	Epi	Dyn	Indet	Total
Joshua	12	-	2	5	1	20
Prince	-	-	-	-	-	-
Francis	-	-	-	-	-	-
J.A. Testamark	-	-	-	1	1	2
J.A. Testamark/X	3	-	-	-	-	3
Joseph	-	-	-	-	-	-
Christian	1	-	-	-	-	1
Roberts	50	-	1	9	4	64
Total	66	-	3	15	6	<u>90</u>

Table C: Function of modal *ha fo* in de Josselin de Jong (1926) per informant

	Dir	Deo	Epi	Dyn	Indet	Total
Joshua	5	1	-	6	2	14
Prince	-	-	-	-	1	1
Francis	-	-	-	2	-	2
J.A. Testamark	2	-	-	-	-	2
J.A. Testamark/X	-	-	-	3	-	3
Joseph	2	-	-	-	-	2
Christian	1	-	-	3	-	4
Roberts	11	-	-	22	16	49
Total	21	1	-	36	19	<u>77</u>

APPENDIX K. (CHAPTER 6)

Function of modal *kan* in de Josselin de Jong (1926) per informant

Speaker	Dir	Deo	Epi	Dyn	Hab	Indet	Vol ^a	Total
Joshua	3	2	-	44	10	5	1	65
Prince	-	-	-	1	1	-	-	2
Francis	-	-	-	-	-	1	-	1
J.A. Testamark	-	-	-	3	-	-	-	3
J.A. Testamark/X	-	-	-	6	2	2	-	10
A.C. Testamark	1	-	-	1	-	-	-	2
Joseph	-	-	-	5	-	-	-	5
Christian	-	1	-	5	1	2	-	9
Roberts	15	7	1	92	1	11	4	131
Joshua/J.C.Testamark/ Roberts ^b	-	-	-	-	-	2	-	2
Total	19	10	1	157	15	23	5	<u>230</u>

^a = These are speech acts where the use of *kan* does not refer to actual ability or possibility, but rather to the willingness of the addressee, as in (i). Hence, I have coded these occurrences as volitional rather than dynamic.

- (i) *Di kining a see am, wa am fraa fo di apl. Ham a see*
 DET king PST say 3SG what 3SG ask for DET apple 3SG PST say
eenteen gut bot am wens am kan draa am lo fa da, fodetma
 no thing but 3SG wish 3SG can carry 3SG go of there because
sini no wel am. Den di jungman a nee am bo shi kabái.
 3PL NEG like 3SG then DET young.man PST take 3SG on 3S.POSS horse
 ‘The king asked her what she asked [in return] for [giving him] the apple.
 She said: “Nothing”, but she wished that he could take her away from there,
 because they didn’t like her. Then the young man [= the king] took her on
 his horse.’

(Joshua; de Josselin de Jong 1926: 23)

- ^b = This text has been provided by these three informants, but de Josselin de Jong (1926) does not specify which part of the text was contributed by whom.

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NEDERLANDSE SAMENVATTING

Tot in de negentiende eeuw zijn er massaal mensen uit Afrika per schip weggevoerd om met name in Amerika onder onmenselijke omstandigheden gedwongen arbeid te verrichten. De huidige Amerikaanse Maagdeneilanden in het Caraïbisch gebied waren één van deze bestemmingen. Op veel plaatsen had deze mensonterende praktijk het ontstaan van nieuwe talen tot gevolg die creooltalen genoemd worden.

In de context van de Caraïben zijn creooltalen talen die ontstaan zijn onder de tot slaaf gemaakte dwangarbeiders. Deze talen zijn ontstaan omdat zij niet alleen als onderlinge gemeenschapstaal konden dienen, maar ook als communicatiemiddel met de Europeanen die hen uitbuiten.

In dit proefschrift bestudeer ik de creooltaal die hoogstwaarschijnlijk eind zeventiende eeuw op de Amerikaanse Maagdeneilanden is ontstaan, toen deze nog een Deense kolonie waren, die als Deens West-Indië bekendstond. In het Nederlands is deze taal bekend als het Negerhollands. Het woord *neger* werd in de koloniale context gebruikt voor tot slaaf gemaakte mensen van Afrikaanse afkomst en wordt nog steeds als minachtende term gebruikt voor zwarte mensen in het algemeen. Als zodanig is gebruik van deze naam misplaatst en onnodig kwetsend en heb ik ervoor gekozen deze te vervangen. In het Engels bestaat er een neutraal alternatief, Virgin Islands Dutch Creole of kortweg Dutch Creole. In het Nederlands is zo'n alternatief niet voor handen en de letterlijke vertaling *Nederlands Creools* roept over het algemeen alleen maar vraagtekens op, ook bij mensen die wel degelijk van de taal zelf gehoord hebben of er bekend mee zijn. Toch zal ik deze naam gebruiken voor deze Nederlandse samenvatting bij gebrek aan een beter alternatief.

Het Nederlands Creools is de taal met de meeste bewaard gebleven historische bronnen van alle creooltalen. Toch zijn er verhoudingsgewijs maar weinig studies over deze taal. Dit komt onder meer omdat de verschillende bronnen met taaldata zich maar moeizaam met elkaar laten vergelijken. De taal zoals hij gesproken werd door mensen van Afrikaanse afkomst vinden we vrijwel uitsluitend terug in laatnegentiende-eeuwse en twintigste-eeuwse bronnen. De achttiende-eeuwse bronnen daarentegen bestaan voornamelijk uit Nederlands Creools dat opgeschreven is door Europese missionarissen met Duits of Deens als moedertaal, die de taal als volwassenen geleerd hadden en haar bovendien uit praktische en idealistische overwegingen naar eigen zeggen met Bijbelse en Nederlandse woorden “verrijkt” hadden. Daarnaast was er een groep sprekers van

Europese afkomst (met name de plantagehouders) die een enigszins ver-Europeeste variant van het Nederlands Creools sprak.

Als we de achttiende eeuwse bronnen dus met de latere willen kunnen vergelijken, is het van cruciaal belang dat de verschillen en de schijnbare en daadwerkelijke overeenkomsten zorgvuldig onder de loep genomen worden. We zitten namelijk met het probleem dat we niet met zekerheid kunnen zeggen of verschillen het gevolg zijn van het verschil in tijd (achttiende eeuw tegenover laatnegentiende/twintigste eeuw) of van een verschil in taalvariant (een door Europeanen gesproken variant tegenover een variant van sprekers van Afrikaanse afkomst). Een bijkomende complicatie is dat niet het Nederlandse Creools maar het Engels Creools van de Maagdeneilanden de dominante taal geworden was van de laatnegentiende en twintigste-eeuwse sprekers. Dit betekent dat het Nederlands Creools dat zij spraken onder invloed van het Engels (Creools) veranderd kan zijn en ook hier moeten we rekening mee zien te houden.

Om meer inzicht in dit probleem te krijgen heb ik gekozen voor het bestuderen van de uitdrukking van tijd, aspect en modaliteit in de verschillende typen bronnen, omdat deze over het algemeen gesproken opmerkelijk specifiek is, en daarmee dus bijzonder geschikt om subtiele verschillen tussen taalvariëteiten op te sporen. Met name kunnen deze het gevolg zijn van invloed van andere talen, zoals bijvoorbeeld de moedertaal van de missionarissen die de achttiende eeuwse bronnen schreven.

De hoofdvraag van dit proefschrift is: *Hoe hebben de tijds-, aspect- en modaliteitscategorieën van het Nederlands Creools zich door de tijd ontwikkeld?* Bovengenoemde problemen moeten dus omzeild zien te worden, wil deze vraag goed beantwoord kunnen worden. Daarom kijk ik ook naar de variatie in het gebruik van de tijds-, aspect-, en modaliteitsmarkeerders en of dit gekoppeld kan worden aan de talige achtergrond van de verschillende gebruikers van het Nederlands Creools.

Enkele interessante aanknopingspunten zijn: i) het wel of niet voorkomen van kenmerken die teruggeleid kunnen worden tot de West-Afrikaanse talen die de tot slaaf gemaakten en/of hun voorouders spraken; en ii) invloed van de dominante taal van de taalgebruiker op het Nederlands Creools. Dit laatste punt is relevant voor de meeste situaties: voor de achttiende-eeuwse missionarissen gaat het om het Duits of het Deens en voor de laatnegentiende-eeuwse en twintigste-eeuwse data om het Engels Creools of het Engels.

Buiten bovenstaande algemene inleiding geeft hoofdstuk 1 theoretische achtergrondinformatie die relevant is voor de studies die in de hoofdstukken 3 tot en met 6 beschreven staan.

Hoofdstuk 2 bespreekt de koloniale geschiedenis van de meertalige samenleving in Deens West-Indië, de huidige Amerikaanse Maagdeneilanden. Verder worden de verschillen tussen de taalbronnen behandeld met achtergrondinformatie over de taalgebruikers die ze vervaardigd hebben en hoe de bronnen tot stand zijn gekomen. Daarnaast bevat het een overzicht van studies en publicaties over het Nederlands Creools. Het hoofdstuk eindigt met een schets van verschillende kenmerken van het Nederlands Creools.

In hoofdstuk 3 onderzoek ik welke factoren van invloed zijn op het wel of niet gebruiken van de verledentijdsmarkeerder in het Nederlands Creools. De verledentijdsmarkeerder is de vorm *a* of *ha* die voor het werkwoord geplaatst wordt, maar soms dus weggelaten wordt. In de twintigste-eeuwse data wordt de verledentijdsmarkeerder met name minder vaak gebruikt in situaties die als niet afgerond beschouwd kunnen worden (*habituele* activiteiten, die als een gewoonte gelden, en *progressieve* activiteiten, die nog bezig zijn, zoals in het Nederlands *hij is nog aan het schrijven*). Maar in vergelijking met andere Caribische creooltalen valt vooral op dat het gebruik van de verledentijdsmarkeerder bijzonder frequent is in het Nederlands Creools, ook (en zelfs vooral) in contexten waar het verledentijds karakter van de uiting al op andere manieren tot uitdrukking komt en het gebruik van de verledentijdsmarkeerder dus niet strikt nood-zakelijk is. De voornaamste conclusie is dat de gevonden patronen niet afgedaan kunnen worden als het gevolg van het feit dat het Nederlands Creools voor de twintigste-eeuwse sprekers niet meer de taal was die zij het meest gebruikten in het dagelijks leven (en het Nederlands Creools daarmee destijds een stervende taal was).

Verder wordt er ook een beknopte vergelijking gemaakt met het gebruik van de verledentijdsmarkeerder in de achttiende-eeuwse data. Ook hier is er een sterk verband met *habituele* situaties (die een gewoonte uitdrukken), maar verder houden de overeenkomsten op. In de achttiende-eeuwse data wordt de verledentijdsmarkeerder vrijwel altijd gebruikt in zinnen met verleden tijd, zoals dat ook gebruikelijk is in talen als het Nederlands en het Duits, de moedertaal van de missionarissen die deze achttiende-eeuwse bronnen schreven. De enkele uitzonderingen zijn zoals gezegd *habituele* (zoals *hij danst graag* of *zij loopt hard* als beschrijving van een hobby) of andere karakteriserende zinnen (zoals *zij weet veel* of *hij is groot*), die zoals uit de voorbeelden blijkt niet gebonden zijn aan een specifiek moment in het verleden, maar voor een langere tijdsperiode gelden.

Het feit dat het onderliggende patroon van de variatie in het gebruik van de verledentijdsmarkeerder in beide typen data essentieel anders is, waarbij het door de missionarissen gebruikte patroon erg op dat uit hun moedertalige Duits lijkt, suggereert sterk dat zij zich in hun keuze voor het wel of niet

gebruiken van de verledentijdsmarkeerder door hun moedertaal hebben laten leiden.

Hoofdstuk 4 gaat verder door op hoe de reeds genoemde situaties die als onafgerond gelden (situaties met *imperfectief aspect*: een verzamelnaam voor *habituële* en *progressieve* activiteiten) gebruikt worden. De verschillende typen taalbronnen wijken op meerdere punten van elkaar af. Enerzijds doordat de achttiende-eeuwse bronnen de vorm *le* (waarschijnlijk afgeleid van Nederlands *leggen* in de betekenis ‘liggen’) gebruiken en de laatnegentiende- en twintigste-eeuwse bronnen *lo* (van Nederlands Creools *loop* dat ‘gaan’ betekent). In een ongedateerde door een Duitse missionaris geschreven grammatica van rond 1800 wordt melding gemaakt van de verandering van *le* naar *lo*, maar dit moet waarschijnlijk gezien worden als een verandering binnen het taalgebruik in het netwerk van degenen van Afrikaanse afkomst die een actieve rol speelden in de kerkelijke gemeenschap van de missionarissen. Zij zullen namelijk hun voornaamste bron van kennis van het Nederlands Creools zijn geweest.

Verder blijkt dat het gebruik van de imperfectiefmarkeerder in alle drie de typen bronnen (missionaris, plantagehouder, personen van Afrikaanse afkomst) een ander patroon heeft. Alleen de sprekers van Afrikaanse afkomst gebruiken de imperfectiefmarkeerder ook daadwerkelijk als een imperfectiefmarkeerder (dat wil zeggen, om habituele activiteiten en activiteiten die nog bezig zijn aan te duiden).

In de laatnegentiende- en twintigste-eeuwse data wordt imperfectief *lo* ook gebruikt in een samengestelde constructie waarin het uitsluitend naar progressieve activiteiten verwijst. De data tonen aan dat deze constructie nog in ontwikkeling is en hoewel niet identiek aan de Engelse *be + -ing* ‘aan het ... zijn’-constructie, zijn de parallellen wel sterk genoeg om te vermoeden dat deze ontstaan is naar het voorbeeld van het Engels als dominante taal op de Maagdeneilanden sinds de negentiende eeuw.

Tenslotte wordt *lo* ook nog gebruikt om op handen zijnde situaties aan te duiden (situaties met *prospectief aspect*, een duidelijk Nederlands voorbeeld is de constructie *op het punt staan te*). Ook hiervan is er een alternatieve constructie (*lo lo*) die gekoppeld kan worden aan het Engelse equivalent *be going to* (letterlijk vertaald ‘aan het gaan zijn (om te)’). Tussen deze twee constructies is er geen verschil in mate van ontwikkeling/grammaticalisatie: beide lijken volledig gegrammaticaliseerd te zijn.

Hoofdstuk 5 laat zien dat de markeerder *ka* in het Nederlands Creools een “voltooide tijd” is (de Engelse term is *perfect*, wat een specifiek type aspect aanduidt dat gebruikt wordt voor situaties die afgelopen zijn, maar waarvan het resultaat in het heden of het moment van spreken centraal staat).

Alternatieve suggesties uit eerder studies worden één voor één weerlegd. Er zijn ditmaal geen essentiële (meetbare) verschillen in het gebruik van *ka* in de verschillende typen bronnen.

Er bestaat ook een aanverwante constructie met het werkwoord *kaba*, dat ‘afmaken/voltoeien’ betekent en dat achter het werkwoord waar het bijhoort geplaatst wordt om aan te geven dat deze situatie afgelopen is. Deze constructie heeft mogelijk zijn oorsprong in enkele van de potentiële substraattalen, Akan, Ga en Ewe, die in het huidige Ghana gesproken worden. Ook deze talen gebruiken een werkwoord van dezelfde betekenis in vergelijkbare positie in de zin, achter het werkwoord waar het bijhoort. Daarnaast heeft deze constructie nog een specifiekere functie en betekenis (situatie is *volledig* afgerond, vandaar de naam *completief* aspect), die we verder alleen aantreffen in het Ewe en zijn zusters talen, die allemaal tot de Gbe-familie behoren. Opmerkelijk genoeg treffen we deze West-Afrikaanse constructie met name in de achttiende-eeuwse data aan. In de twintigste-eeuwse data komt *kaba* bijna altijd vóór het werkwoord om aan te geven dat deze handeling voltooid is en komt de specifieke *completieve* betekenis amper voor. Dit zou wederom op invloed van het Engels, of ditmaal zelfs specifiek het Engels Creools van de Maagdeneilanden kunnen duiden, dat eenzelfde constructie heeft (met *done* ‘klaar’) die ook vóór het werkwoord komt.

Hoofdstuk 6 onderzoekt variatie in het gebruik van modale en volitionele werkwoorden. Zo zijn er in de twintigste-eeuwse data drie vormen (*ha fo*, *fo* en *mut*) die vertaald kunnen worden als ‘moeten’. *Fo* wordt veruit het meeste als een *directief* gebruikt, dat wil zeggen dat de modale uiting hetzelfde effect beoogt als een gebiedende wijs, zoals in *Je moet de afwas doen* (\approx ‘ik gebied jou de afwas te doen’). *Ha fo* heeft deze voorkeur óf niet, óf wordt (bij één spreker) het meest gebruikt voor *dynamische noodzakelijkheid* (een noodzakelijkheid die als vanzelf voortvloeit uit een situatie of een persoonlijke of lichamelijke behoefte. Een voorbeeld is: *Die grot is veel te donker; als je er wat wilt kunnen zien, moet je een zaklamp meenemen*).

Er zijn ook twee verschillende werkwoorden, *mankee* ‘willen, nodig hebben’ en *wel* ‘houden van, leuk vinden’, die als hulpwerkwoord het concept WILLEN uitdrukken. De keuze voor de één of de ander hangt samen met ontkenning: *wel* wordt bijna altijd gebruikt in ontkenkende zinnen (met *no/na* vóór het werkwoord) en *mankee* in bevestigende. Hetzelfde vinden we bij *fo* en *ha fo*: in de data komt alleen *fo* met ontkenning voor, *ha fo* niet. Dit lijkt dus samen te hangen met het aantal lettergrepen: een sterke voorkeur voor ontkenning bij de éénlettergrepige vormen en het vermijden van ontkenning bij de tweelettergrepige.

Het gebruik van modaliteit wordt in de achttiende-eeuwse missionarisbronnen gekenmerkt door aanzienlijke invloed van de moedertaal van de missionarissen (Duits of Deens). Zo is bijvoorbeeld het Duitse werkwoord *daerf* 'mogen' geïntroduceerd, omdat het Nederlands Creools zelf geen apart werkwoord heeft dat uitsluitend gebruikt wordt voor toestemming en verbod. Wat betreft *mankee(r)* verschillen de missionarisdata van de data van de plantagehouder. Deze laatste maar niet de eerste komen overeen met het gebruik van *mankee* in de twintigste-eeuwse data. In dit specifieke geval lijkt het verschil niet te verklaren door invloed van hun moedertaal, maar eerder te wijzen op conservatief taalgebruik van de missionarissen: ze zijn mogelijk niet meegegaan in een potentiële taalverandering in het gebruik van *mankee* in de loop van de achttiende eeuw.

Verder gaat hoofdstuk 6 in op de vraag of we een ontwikkelingspad kunnen reconstrueren voor de drie verschillende noodzakelijkheidsmodalen. In de achttiende-eeuwse data komt alleen *mut* voor. Is *mut* daarmee een artificiële vorm die alleen door Europeanen en hun afstammelingen gebruikt werd of is het daadwerkelijk een oudere vorm? *Ha fo* hangt samen met het Nederlandse *hebben te*, maar sterker nog met het Engelse *have to*. De historische ontwikkeling van beide vormen laat zien dat Nederlands Creools *ha fo* zich verder ontwikkeld heeft dan de Nederlandse bronconstructie, mogelijk naar analogie met het Engelse *have to*. In de negentiende eeuw schakelden sprekers van het Nederlands Creools massaal over op het Engels en Engels Creools. Het is historisch gezien dus plausibel dat *ha fo* zijn intrede gedurende deze ontwikkeling gedaan heeft. Maar uitsluitsel hierover valt op basis van de data niet te geven.

Hoofdstuk 7 vat de belangrijkste conclusies per hoofdstuk samen en beantwoordt de onderzoeksvragen. De verschillende studies over de tijds-, aspect- en modaliteitsmarkeerders laat zien dat de meeste verschillen tussen de achttiende-eeuwse missionarisdata en de twintigste-eeuwse volksvertellingen erop wijzen dat beide aantoonbaar verschillende grammaticale systemen hebben. Dit komt in de eerste plaats omdat de missionarissen tweedetaalleerders en -gebruikers van het Nederlands Creools waren.

Desondanks kunnen we ook verschillen ontwaren die een andere oorzaak moeten hebben. Dit is het duidelijkst voor *kaba*, dat West-Afrikaanse invloed laat zien waar we die het minst verwachten: in de achttiende-eeuwse missionarisdata.

Verder zien we dat de plantagehouderdata ook structureel (hoewel bij lange na niet op alle vlakken) afwijken van de missionarisdata en dat er zich in deze eerste onafhankelijke ontwikkelingen voordeden, zoals de studie van de imperfectiefmarkeerder laat zien. Bovenal zien we recente ontwikkelingen in het twintigste-eeuwse materiaal, die doorgaans geïnspireerd

lijken door de Engelse equivalenten van de constructies in kwestie. Dit bevestigt nogmaals dat verschillen tussen de achttiende- en de laatnegentiende- en twintigste-eeuwse data niet uitsluitend toe te wijzen zijn aan het feit dat we met twee verschillende taalvariëteiten te maken hebben. Er zijn dus wel degelijk aanwijzingen voor tijdsverschillen.

Als laatste is er ook stabiliteit tussen de drie verschillende typen data: *kan* is in alle drie de data een modaal werkwoord dat mogelijkheid, toestemming en een gewoonte uitdrukt. En *ka* is in alle typen data een “*perfect*”, of voltooide tijd en geen resultatief-, completief- of perfectiefaspectmarkeerder.

Alles bij elkaar laat de studie van tijds-, aspect- en modaliteitsmarkeerders in het Nederlands Creools het belang zien van het accepteren en omarmen van variatie, ook in onderzoek naar creooltalen. Slechts op deze manier kunnen individuele van groepsverschillen onderscheiden worden in de taalanalyse, wat een grote meerwaarde heeft voor het onderzoeken van taalcontact.